

Advancement through Innovation

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# OASISPLUS EARTHQUAKE BUSINESS CONTINUITY

FROM KINEMATRICS

# EARTHQUAKE BUSINESS CONTINUTIY

**Uninformed decision-making during an earthquake increases the potential for panic, injuries, and costly downtime.**



OasisPlus is a technology platform designed to provide the tools and information you need before, during, and after an earthquake.

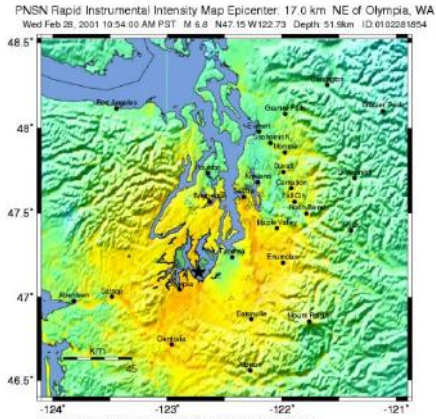
- Avoid unnecessary evacuations and business process interruptions to secure ongoing critical operations
- Enable better-informed decision making during an earthquake to assure continuity of operations
- Protect your brand from damage associated with mishandling of emergency situations
- Minimize expensive downtime and distress

# UNINFORMED EARTHQUAKE RESPONSE

Uninformed decision-making creates the potential for panic, injuries, and costly downtime

## *Unnecessary Evacuation* US Naval Hospital Bremerton 2001 M6.8 Nisqually EQ

- The Hospital experienced strong shaking
- Significant non-structural damage occurred
- The Question: Is the Structure Safe to Occupy?
- Limited monitoring of the structure provided no real-time information
- Responding firemen chose the most conservative decision – **Evacuate the Hospital**
- The hospital was subsequently deemed safe following inspection



PERIOD	Fast	Weak	Light	Modest	Strong	Very strong	Severe	Violent	Extreme
PERIOD	none	none	none	Very light	Light	Modest	Modest/heavy	Heavy	Very Heavy
PERIOD	< 17	17-14	14-9	9-6.2	6.2-5.8	5.8-5.4	5.4-5.0	5.0-4.6	> 4.6
PERIOD	< 0.1	0.1-1.1	1.1-2.4	2.4-4.1	4.1-10	10-21	21-60	60-124	> 124
PERIOD	I	II	III	IV	V	VI	VII	VIII	IX



**Negative Impact: Patients Moved Unnecessarily**

# DELIVERING BUSINESS CONTINUITY

OasisPlus puts a complete earthquake management solution under your control.



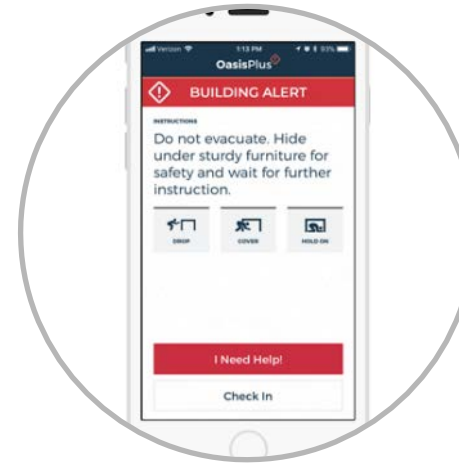
## ADVANCED SENSING TECHNOLOGY

Acquires essential data during shaking, and rapidly delivers actionable information to key decision makers, regardless of location.



## MANAGEMENT CONSOLE

Real-time information from sensors, injury & hazard reports, and occupant check-ins are presented via the console, enabling your response team to better manage the situation.



## SMART PHONE APP

Occupants check-in, report injuries or hazards, and receive instructions from your team via the mobile app, simplifying communication to help occupants stay safe.

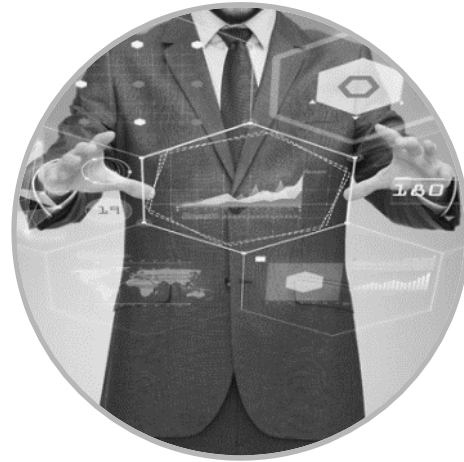


## INFORMED DECISION MAKING PLATFORM

OasisPlus delivers critical information you need to be confident in your decisions, provides situational awareness through real-time data, and promotes effective coordination and communication.



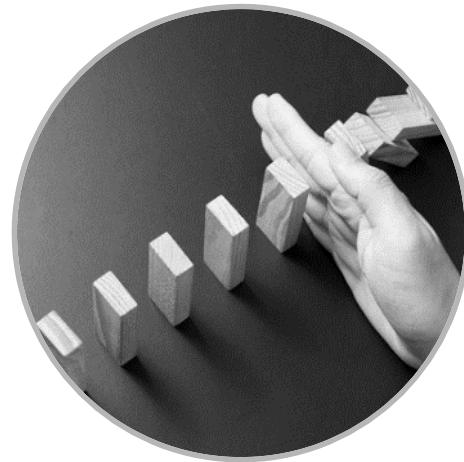
**BETTER PREPARE FOR  
EARTHQUAKES**



**MANAGE EVENTS  
EFFECTIVELY**



**INFORMED DECISION  
MAKING**



**MINIMIZE TIME TO  
RETURN TO BUSINESS**



# OASISPLUS

What Will It Do For Me?

The tools and information provided by OasisPlus help ensure a coordinated, effective response to earthquakes. This reduces injuries, promotes rapid safety assessments, and results in a faster resumption of work.

Understand how the earthquake has affected your building.

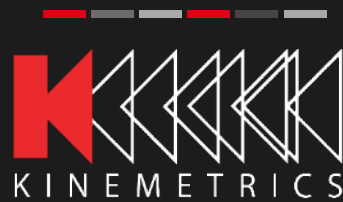
Know the location and condition of building occupants.

Target your emergency response to the areas that need it most.

Communicate instructions directly to occupants via the smart phone app.



# THANK YOU



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# UNINFORMED EARTHQUAKE RESPONSE

Uninformed decision-making creates the potential for panic, injuries, and costly downtime

## Unnecessary Evacuation Seoul, South Korea 2017 5.4 EQ in Port City of Pohang

- Moderate earthquake, 270 km away
- Buildings experienced significant movement
- The Question: Is the Structure Safe to Occupy?
- No monitoring information was available to managers
- Emotional decisions based upon no information were made – **Evacuate Buildings**
- Panicked occupants fled into streets
- Buildings experienced no significant damage

### TREMOR TERROR South Korea hit by 5.5 magnitude earthquake as locals reported seeing buildings shake

People who live more than 186 miles away from the quake centre reported feeling tremors

By Brittany Vonow  
15th November 2017, 6:54 am | Updated: 16th November 2017, 9:41 am

### South Korea postpones college exam after rare quake

Special: South Korean authorities took the unprecedented step of postponing nationwide college entrance exams after a rare 5.4-magnitude earthquake hit the southeast on Wednesday, sparking alarm in a country that seldom experiences significant tremors.

The quake, the second most powerful recorded in South Korea, struck at the shallow depth of 9km near the industrial city of Pohang, the Korea Meteorological Administration said.

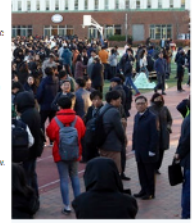
Some people were injured: South Korea's administrative ministry said, but they warned that number could rise because the quake was shallow.

Seismic activity is closely monitored because a spike in activity is often the first indication that North Korea has carried out a nuclear test.

Students gathered on playground after evacuating after an earthquake at Pohang University in Pohang, South Korea on November 15, 2017. (Yonhap via AP)

Wednesday's quake was felt across the country, including in the capital Seoul.

It came a day ahead of the all-important college entrance exam during which the whole nation falls silent to help teenagers focus on the annual event, whose result could define their future in the hyper-competitive society.



### 5.4 quake in southeast South Korea causes some minor damage

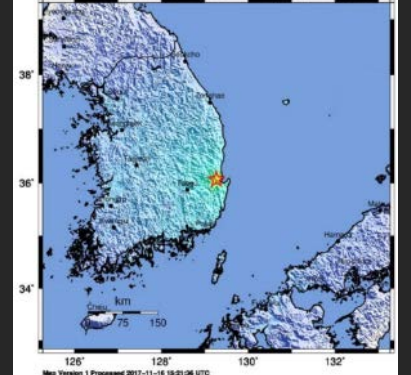
AP By The Associated Press  
November 15, 2017 2:07 am



CORRECTION CORRECTS MAGNITUDE: People gather outside after evacuating Ulsan City Hall after an earthquake in Ulsan, South Korea, Wednesday, Nov. 15, 2017. A 5.4-magnitude earthquake struck off South Korea's southeastern coast Wednesday afternoon...

SEOUL, South Korea (AP) — A 5.4 magnitude earthquake shook South Korea's southeastern coastal region Wednesday afternoon, breaking some windows and crumbling walls near the epicenter. No casualties were reported.

USGS ShakeMap - 9km WNW of Hoko, South Korea  
Nov 15, 2017 06:29:32 UTC M 5.4 N06.06 E129.27 Depth: 10.0km IDua2000bms



PERIOD	Peak		Weak		Light		Moderate		Strong		Very Strong		Severe		Violent		Extreme		
	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	max	min	
PEAK ACCELERATION	<0.05	0.3	2.8	0.3	12	22	40	75	>150										
PEAK VELOCITY	<0.02	0.1	1.4	4.7	8.9	30	41	86	>178										
PRELIMINARY INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X										

### Negative Impact: Downtime, Panic & Distress

# UNINFORMED EARTHQUAKE RESPONSE

Uninformed decision-making creates the potential for panic, injuries, and costly downtime

## *Unnecessary Evacuation* *Multiple Office Buildings in UAE* *2013 M7.8 EQ*

- Large earthquakes hundreds of kilometers away
- Tall buildings experienced significant movement
- The Question: Is the Structure Safe to Occupy?
- No monitoring information was available to managers
- Emotional decisions based upon no information were made – **Evacuate Buildings**
- Panicked occupants fled into streets
- Buildings experienced no damage

### 'Terrifying' earthquake causes shock waves across UAE

Tremors result in panic - but no damage - in Dubai and Abu Dhabi



Image Credit: Courtesy: Faruq

People rushed out of buildings on Sheikh Zayed Road after feeling mild tremors yesterday. But residents of Ras Al Khaimah felt a strong impact.

Published: 21:00 May 22, 2014  
By Afrah Kazmi, Bureau Chief

GULF NEWS



### Massive quake hits Iran

A major earthquake struck Iran on Tuesday, its tremors were felt in the Gulf states and India's capital New Delhi



## Negative Impact: Financial Loss & Distress

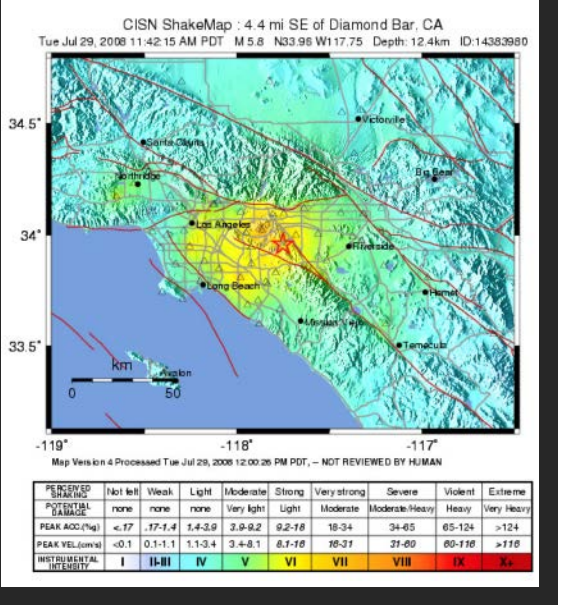


# UNINFORMED EARTHQUAKE RESPONSE

Uninformed decision-making creates the potential for panic, injuries, and costly downtime

## Unnecessary Evacuation Downtown Los Angeles 2008 5.4 EQ in Chino Hills, CA

- Moderate earthquake, 56 km away
- Buildings experienced significant movement
- The Question: Is the Structure Safe to Occupy?
- No monitoring information was available to managers
- Emotional decisions based upon no information were made – **Evacuate Buildings**
- Panicked occupants fled into streets
- Buildings experienced no significant damage



**5.4 Quake Shatters Nerves, but Little Real Damage in Southern California**

Published July 30, 2008 - Associated Press

LOS ANGELES — The strongest earthquake to strike a populated area of Southern California in more than a decade rattled windows and chandeliers, made buildings sway and sent people running into the streets on Tuesday. But there were no immediate reports of serious injuries or major damage.

The 5.4 magnitude quake — considered moderate — was felt from Los Angeles to San Diego, and as far east as Las Vegas, 230 miles away. Nearly 30 aftershocks quickly followed, the largest estimated at 3.8.

The quake was centered 20 miles southeast of downtown Los Angeles near

### Negative Impact: Downtime, Panic & Distress