

Welcome to the public launch
of

SOLUZION

Real Time Early Warning Systems

The Third UN Global Platform 2011

IGNITE Stage Launch Presentation Wed 11th May

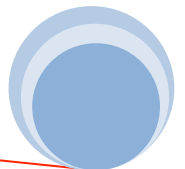
Presented by Garry de la Pomerai



Care-Life



**VVSC
SOLUZION**



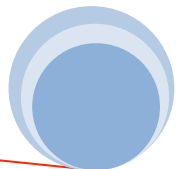
Together creating the dynamic 'Soluzion'.

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What is the challenge?

The Guarantee that at the time of the onset of a natural disaster that 'every' individual is given warning of the imminent danger with enough information to enable an intelligent decision for the best coarse of action



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***The ‘TIME’ factor or the lack of it and
‘SURPRISE’ factor
during the onset of earthquakes and
Tsunamis or flash floods and landslides are
two main factors that potentially minimise
survivability***

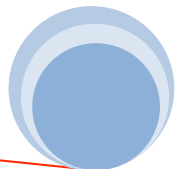
***If we can improve these factors by any
degree we can the increase survivability
“substantially”***



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How much time is needed to make a difference in an Earthquake?

“ In Japan 2 seconds of early warning time can reduce casualties by 25% with 5 seconds warning potentially reducing casualty rates by 80%”

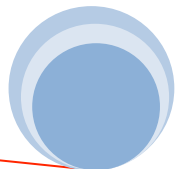
Japan (REIC)



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Another Challenge factor is the cost of casualty

Can we put a cost on the loss of life?

To family and friends NO

To society --- to Governments YES

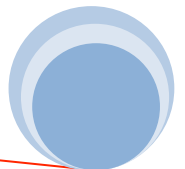
Especially if we have alternatives to minimise the costs



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The Potential Financial consequences without *a system*

Table 3 Value of casualties in the 1994 Northridge Earthquake, USA in 1994 US\$ (Porter et al., in press).

Injury	severity Count	Unit cost	Total cost
DOA (Dead on arrival, no care required)	27	\$2,600,000	\$70,200,000
Die in hospital	6	2,600,000	\$15,600,000
Hospitalized/trauma cases	9	1,980,000	\$17,820,000
Hospitalized/non-trauma cases	129	150,000	19,350,000
Emergency treat & release	8,200	40,000	328,000,000
Out of hospital treat & release	16,400	40,000	656,000,000
Injured no treatment	221,400	5,000	1,107,000,000

sub total critical factor \$103,620,000

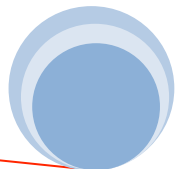
Total Cost of Casualties estimated at **\$2,213,970,000**



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I introduce to you

'SOLUZION'

The first dynamic Natural Hazard Real Time Early Warning
Seismic Sensor alarm and data collation networked system
designed to integrate with developing Multi Hazard alarm systems

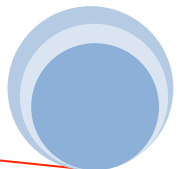
- Extending the existing earthquake and landslide early warning time factor
- Improving the message type removing the surprise factor
- Dramatically reducing the potential cost factor to Society and Governments



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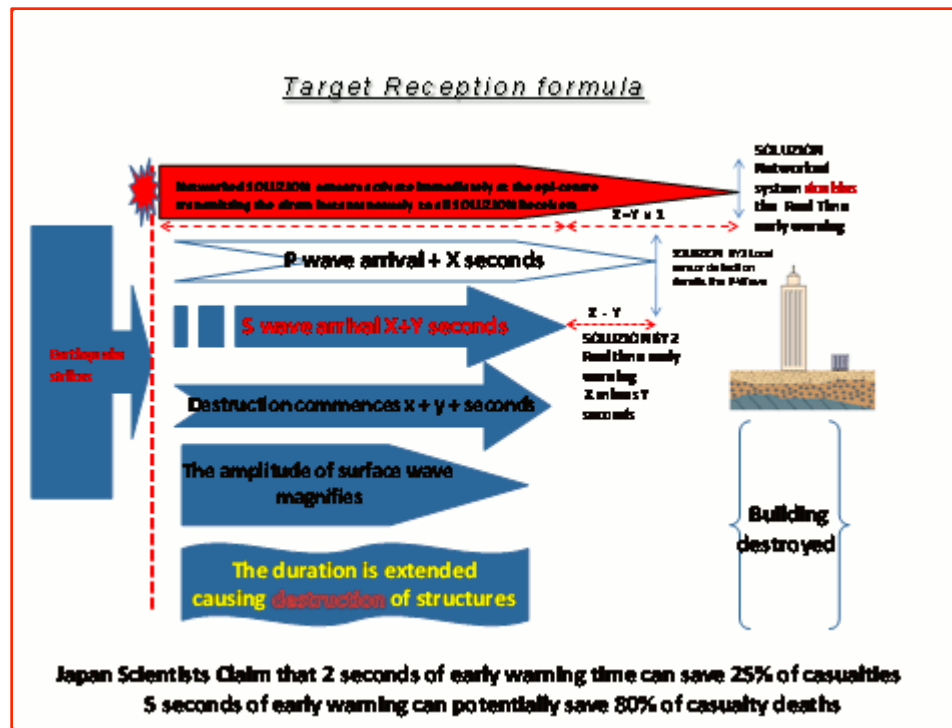
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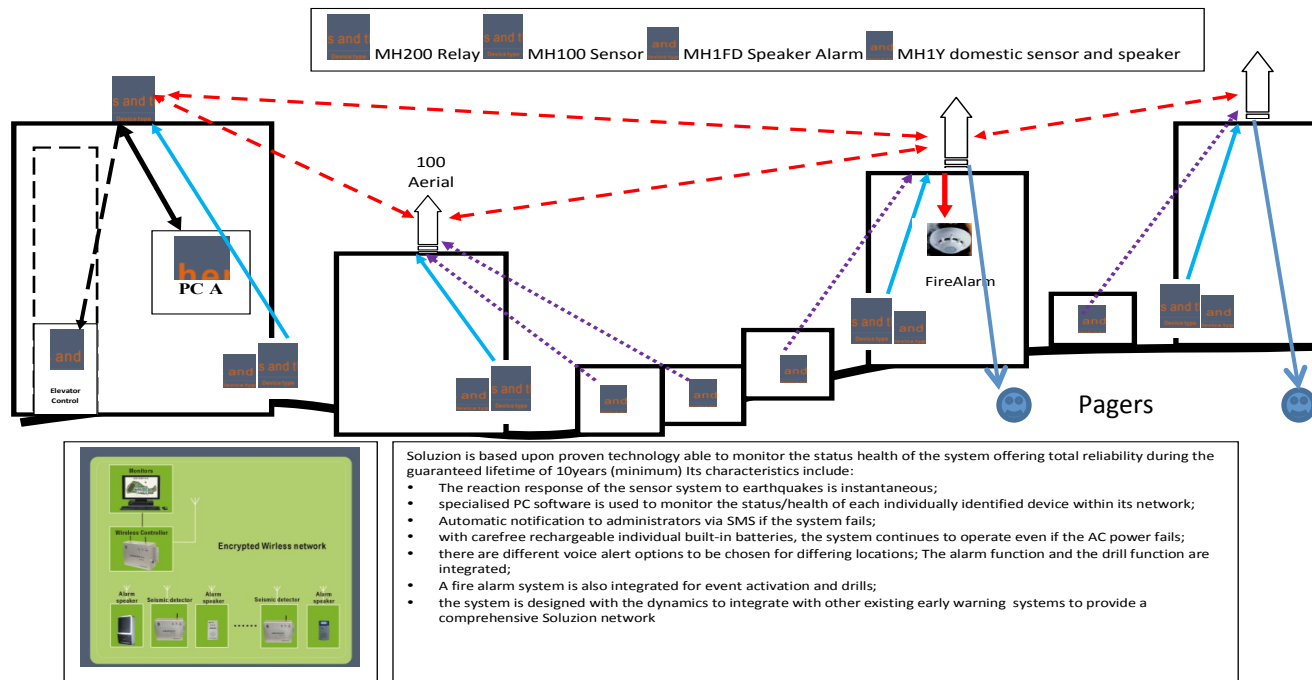
HOW Does SOLUZION generate the extra early warning time?



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How does SOLUZION generate the improved communications?



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The Alarms Speak to you in your language

[Removing the potential surprise or confusion factor]

...with a verbal warning of the **type** of imminent danger

Plus with a verbal **countdown** to seismic arrival of the S-Wave

With the opportunity for future messaging within **trained** communities
of 99 message types

Plus with the facility to 'ringfence' communities and devices locations
for Drill and Exercise Activation

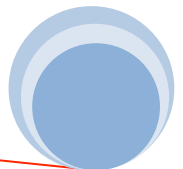
To importantly offer the opportunity to 'ringfence' communities for
warnings of **secondary events** such as Tsunamis, Flashfloods and
Wildfires



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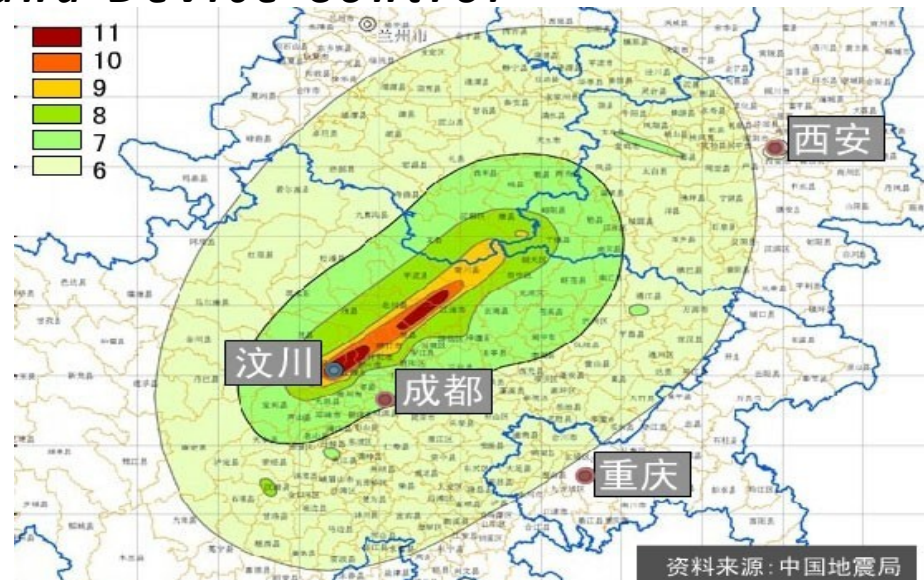
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The SOLUZION system provides Instant Regional Event Mapping and Device Control

•A key Development is the “fast earthquake disaster reporting system”, where the software is now able to report the intensity and distribution of quakes almost immediately after they strike using the networked Soluzion system devices

•It took more than 2 days to realize the disaster distribution in 2008

•Now with Soluzion we will get the information within three minutes



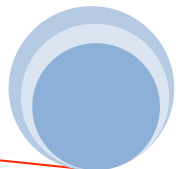
Each device has its own identity



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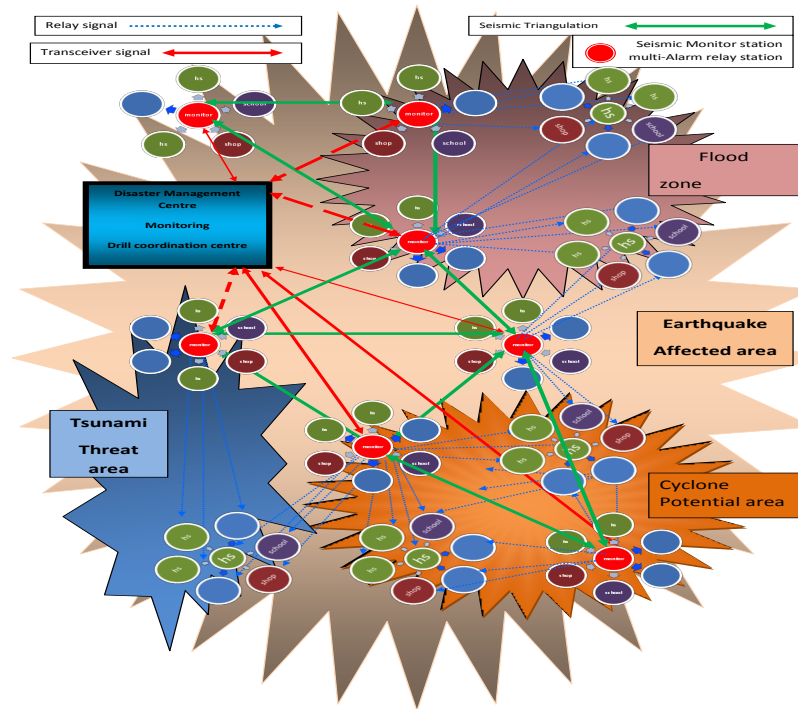
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How can and why should SOLUZION Integrate with existing Multi Hazard Warning Systems?



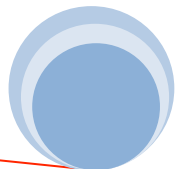
Dynamics
Collaboration
Integration
Improvement



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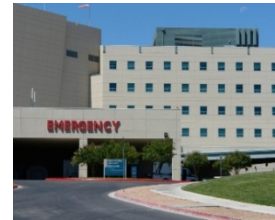
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SOLUZION now offers the opportunity
to Governments, Emergency Services, Military and Industry to protect its citizens,
personnel and employees
and
critical supply infrastructure!

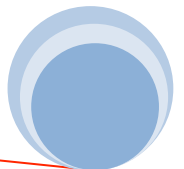
“In fact SOLUZION offers this opportunity direct to every individual”



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What other systems are out there?

Japan

California

Mexico City

The Tsunamis Early warning system to name four

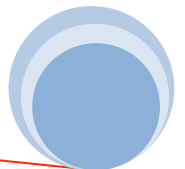
This is not a competition but an opportunity to enhance and integrate and develop for a Global Solution working as a team to protect us all in an unknown future



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What other devices are out there

Earthquake alarm from USA: Quake alarm



Sales pitch:

Provides early warning by detecting an earthquake's sound wave before the earthquake's destructive shear wave strikes your area.

Fully adjustable sensitivity setting.

Automatically resets and shuts off alarm when earthquake stops.

Mounts easily to wall. No screws, nails or tools required.

Loud distinctive alarm to wake you up. Monitors aftershocks.

Offers peace of mind and keeps you informed. Can detect earthquakes that occur many miles away.

Saves valuable seconds by removing the normal guesswork involved in earthquake detection.

*Patented **reverse pendulum** detection system*

Devices Deficiencies:

- Must await the P-Wave
- Stand alone and therefore prone to false alarms
- None integrated to any monitoring system
- Purely a sound alarm with no instruction
- Provides no facility for drills

Japan's quake alarm: GraGraph



Device deficiencies:

- Not robust
- Must await the P-Wave
- Purely for the domestic gadget market
- Stand alone / prone to false alarms
- None integrated to any monitoring system
- Provides no facility for drills

Sales pitch:

Gragraph features:

Perceives shaking, and indicates on display

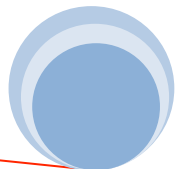
- Warns of shaking with sound and voice
- Indicates level from 3-10
- Keeps record of previous seismic activity
- During the night, it activates a safety light
- Calendar/Clock function



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Other Important considerations:

SOLUZION is not in competition with existing systems or devices.....

SOLUZION is not an alternative to or priority over other important DR initiatives such as

**Building Resilience into new build or retrofitted buildings With building codes and construction industry capacity development
Nor does it take priority over DR Education, ESD
or Community awareness programmes**

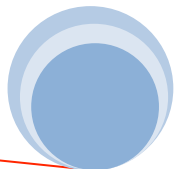
However ...in the meantime whilst these develop we have an obligation to offer every opportunity to the individual to survive a disaster



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What Else can we provide?


The SOLUZION Mobile kit for first responders emergency teams and USAR Teams

■ Key tech. has passed the official tests of Institute of Engineering Mechanics, China Earthquake Administration
 ■ Key tech. has been appraised by Sichuan Science and Technology Bureau
 ■ Reported by CCTV <XinWenLianBo>, the official news media of China

Earthquake alarm system for rescue scenes

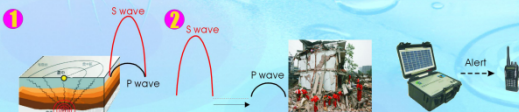
Mh2000 earthquake alarm system for rescue scenes, consists of three detectors Walkie-talkies. The detectors can detect seismic activities, make alert decisions with wireless-network based intelligent analysis. When an earthquake strikes, the Walkie-talkie is turned on automatically and alerts for the approaching danger are transmitted to personnel via personal radios.

Intelligent Earthquake Alarm Expert



- The rescue scene can be extremely dangerous, maintaining the safety of the rescue team is challenging.
- At the first moment of aftershocks, the alarm system can alert personnel.
- The alarm can detect both the P wave and S wave, providing more time for safety.
- The battery can last for 7 days. With solar battery, it can work without interruption.
- The threshold of the alarm can be reset.
- With four patents to suppress false alarms.


How does MH2000 alarm system work?




When an earthquake strikes, the P wave and S wave are generated simultaneously. While the travel speed of P wave is faster than that of S wave, the P wave is less destructive for constructions. The detection of P and S waves provide early warning alerts for earthquakes. The alerts is transmitted to personnel through Walkie-talkie etc.

The following illustrates why MH2000 can save more time for safety

Without MH2000 the response of people against earthquake follows:



With MH2000 the response of people against earthquake follows:



Earthquake alarm system for rescue scenes



In case of aftershocks, the rescue personnel get alerts through wireless network.

The rescue scene can be extremely danger, keeping the safety of the rescue team is challenging.



The rescue personnel get shelter once he/she get alerts.

Chengdu Meihuan Tech.Co.,Ltd
www.huania.com

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Other Benefits to Communities:

Any School within a networked Region
will be device fitted for free

We seek sponsors for Hospitals and Health centers

We seek sponsors for communities and personal home devices

The opportunities for collaborative approaches is enormous

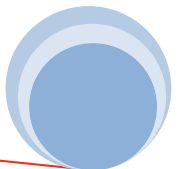
**Within packaging we will offer the opportunity of DR publication statements,
training and reactionary advice..... agreed by NDMAs**



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Costs..... ????

We have seen an example of the consequential costs of an small earthquake in Northridge

To network a small City \$1m

A average Island \$1/2m

A 1200kms border \$4m

To network a 803Ksqkm Country.....

.....The cost of the Northridge earthquake Casualties\$2b

With the networks set up, the data is instantly available to NDMAs

The public can then buy into the system with personal home and office devices and a variety of add on's such isolation valves etc

With personal devices @ \$90 per pair expected to reduce to \$50 pper

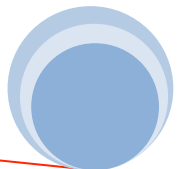
BEFORE sponsorship



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Summary

SOLUZION could dramatically reduce the casualty costs factor

SOLUZION can double the time factor for seismic early warnings

SOLUZION can dramatically improve the message, eliminating the surprise factor

Remember:

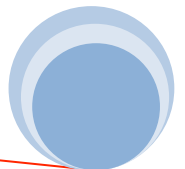
*“In Japan 2 seconds of early warning time can reduce casualties by 25%
with 5 seconds warning potentially reducing casualty rates by 80%”
Japan (REIC)*



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Summary

What the SOLUZION system provides:

- An opportunity to integrate with other hazard type early warning systems;
- providing a united communication and data integration facility;
- relaying real time warnings through Disaster Management Centres;
- potentially to every individual within an affected region;
- using secure Wireless, the Ethernet, Satellite and SMS technology and additional bespoke pager facilities.
- The inherent dynamics within all **SOLUZION** sensors, relays, transceivers and software systems allows a multitude of future opportunities to develop and integrate as real time early warning technology and 'reliable prediction' science unfolds within multiple hazard types.

Together Creating the Dynamic

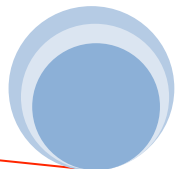
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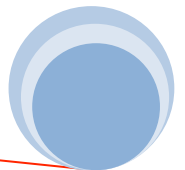
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The Optimum Plan Layout for maximum coverage for Urban and Rural and an individual Cluster

The Planning of installations is vital in order to be cost effective for Clients and to maximise device coverage both within Rural and Urban locations to establish monitoring and communications networks.

The adjoining diagram demonstrates the pattern most efficient for planning a layout either with a 3km radius for Urban or a 5km radius for Rural. The square box is the coverage boundary for a sector of 12x13kms = 150sqkms of Urban and 20x22kms = 440sqkms for Rural both incorporating x17 MH100 Monitoring/ relay devices, 17 speakers and 1 MH200 transceiver connected to the PC Control.

The centre circle represents an individual cluster of 7 devices only, covering an affective Urban area of 9x8kms = 72sqkms.

Additional monitoring devices can be added upon demand and multiple speaker receivers can be acquired by the community through retail outlets allowing them to be integrated into the networked alarm system

