



 WHITE PAPER

The Dutch Ministry of the Interior's Innovation in Public Warning



Pandemic or not, with public safety at the top of any government's agenda around the world, the Dutch Ministry of the Interior decided it was time to select and adopt a modern public warning system to assure the safety of its citizens and residents, and also its visitors and tourists at critical times. After a thorough selection process and reviewing requirements and capabilities, they opted for a Population Alerting technology which provides the ability to reach millions in seconds at critical times while protecting people's privacy: Cell Broadcast.

Background

Founded in 1798, The Ministry of the Interior and Kingdom Relations is one of the 13 ministries that make up the Dutch Central Government and is comprised of over 3,000 civil servants in addition to the Minister and State Secretary. Its activities include upholding the constitution, guaranteeing the rule of law and ensuring public order and safety. The public safety function of the Ministry is carried out by the Directorate of Safety and Security and the Department of National Security, including the National Crisis Centre (NCC). Located in The Hague the NCC has been designed to serve as a national hub for crisis management, ensuring that the country has the capability to react quickly and decisively in the event of large-scale public safety events.



We wanted to approach this project from a people-centric standpoint. We wanted the solution to fit actual needs rather than to choose technology for its own sake.

A new playbook for protecting the public

A core function of the NCC is warning the public in the event of a disaster or threats to public safety. Prior to 2004 the NCC relied on siren systems, TV and radio broadcasts as channels for public warnings and alerts.

Sirens work well in alerting a large number of people to the fact that something is happening, but they do not provide information on the nature of the incident or what the appropriate response should be. Unless a person is near a TV or radio broadcasting this information, their response to a siren may actually put them in danger.

An example of this would be in the event of flash flooding where a siren may make people move inside to watch a TV broadcast – the exact opposite of what they should be doing (evacuating the area).

Willy Steenbakkers, senior crisis coordinator at the NCC describes the situation: “The nature of the threats that impact on the safety of the public have changed rapidly in the 21st century. The Netherlands, along with many countries in the West, must face up to threats of terrorism, natural disaster and industrial accidents on a scale never seen before, yet our systems for public warning have remained rooted in mid-20th century technologies”. The NCC realised that the time had come for a new approach to public warning.

Steenbakkers continued: “We wanted to approach this project from a people-centric standpoint. We wanted the solution to fit actual needs rather than to choose technology for its own sake. For that reason, we conducted an in-depth audit of exactly what our requirements were.”

Defining the new requirements

The NCC recognized that for a public warning system to be successful a number of key factors had to be considered.

The new solution would need to offer the ability to:

- + Reach the vast majority of Dutch residents no matter where they are in the country, at any time in case of fire, flooding, severe weather, terrorist attacks, pandemic, and more
- + Reach visitors and tourists in addition to resident and citizens
- + Transmit the alert immediately, in real-time
- + Provide contextual information on the underlying critical event that triggered the alert
- + Send alerts from a robust, reliable and always-on system
- + Make it easy for people to receive notifications without the need to register or download a specific app
- + Protect people's privacy (GDPR)



Selecting the Right Solution

Once the requirements for a new public warning system were established, the NCC started to investigate the different options. As mobile phones are now ubiquitous in the Netherlands, it was decided early on that the public warning system should leverage the wireless networks as the main communications channel.

Steenbakkers commented:

“The mobile phone is a truly universal device in the Netherlands. There are nearly 125 phones for every 100 people, according to the ITU. There is no other communications channel that can reach directly to so many people and carry the right amount of information we needed from our public warning system.”

After discussing with the Netherlands' mobile operators about the most appropriate solution to meet the requirements, the NCC decided to select a text-based alerting solution, transmitted over cellular networks, with no opt-in required, which would provide the ability to reach everyone with a mobile phone in a specific geographic area, in seconds: Cell Broadcast.

The Everbridge One2many Cell Broadcast System offers exactly that: a real time service for distributing text messages to all the connected mobile handsets in a specific area, which can scale up to the size of a country. Cell Broadcast is capable of broadcasting one single message to reach all mobile handsets in an area as small as one radio cell and as big as an entire country. It is fast and operates in real time: sending a message to millions of handsets in seconds.



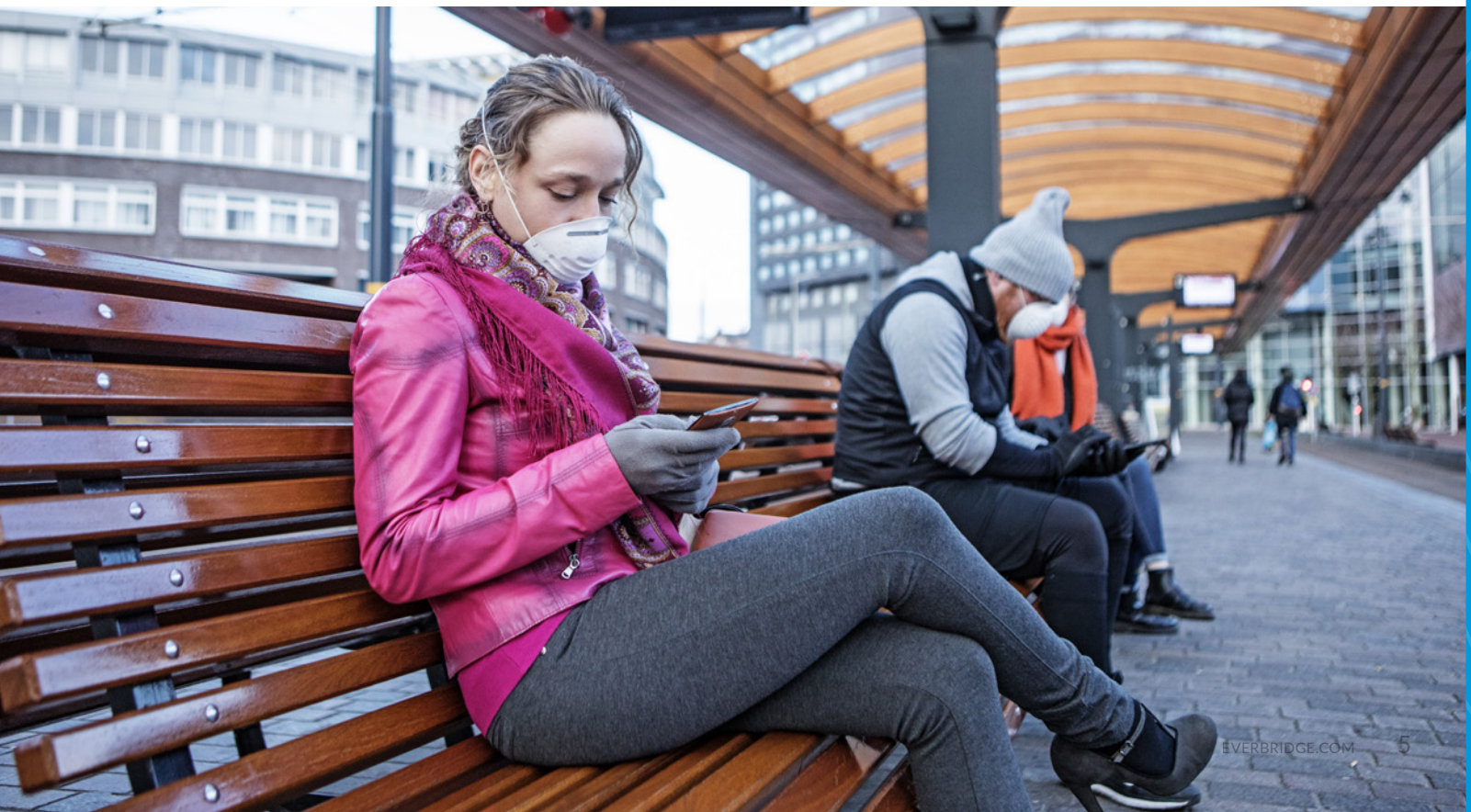
“The implementation of Cell Broadcast across Europe will be a massive step forward for the safety of all Europeans, no matter where they are on the continent.”

- Steenbakkers

The Implementation Phase

In 2007, the NCC launched a large-scale trial of Everbridge one2many's Cell Broadcast system in New Zealand. This is an area that has historically been susceptible to large-scale flooding and would benefit greatly from an improved public warning service. The trial saw 600 mobile handsets, with the Cell Broadcast channel enabled, handed out to members of the public and businesses in the region. Message alerts were sent out at unexpected times in order to simulate an actual event. The results of the trial were impressive, showing that the messages got through to 72-88 per cent of users across the course of the assessment. 80-94 per cent of the members of the public used for the trials appreciated that Cell Broadcast was a useful addition to the use of sirens for public warning (the remaining users had their phones switched off when the messages came through). Based on the success of the trial and the exceptionally high user acceptance level, the NCC decided to move ahead with a full implementation of Cell Broadcast in the Netherlands.

As Steenbakkers pointed out: “The trials of one2many's service exceeded our expectations and we have found a public warning system that will be of immense benefit to the public. We are currently working with the three major operators in the Netherlands to integrate the platform into their networks and they are as positive about the project as we are. Everyone involved in the deployment of Cell Broadcast in Holland can see the social benefits of the program and is fully committed to making it a success.”





Front End



Cell Broadcast

Population

17.3 million

Sending AuthorityMinistry of Justice
and Security**Reach & Speed of Alerts**

94% reach

Alerts delivered in seconds

Historic Use Cases

Fire

Terrorist attack

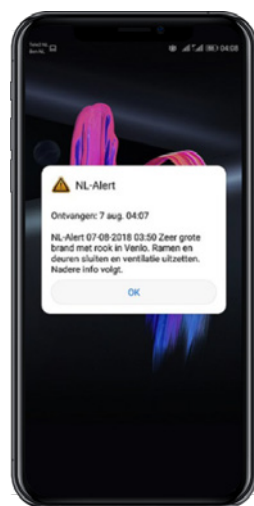
Severe weather

COVID-19

Alerting Incidents173 NL-Alerts broadcast
in 2019

The Netherlands: NL-ALERT

NL-Alert uses Everbridge one2many Cell Broadcast as the primary channel for public warning. Using this system the Dutch authorities can send alerts to all mobile phones nationwide or target specific areas.



NL-Alert broadcast in the area of Venlo on 7 August 2018 because of a large toxic fire.

Paving the way for other countries

The Netherlands is one of the countries that are leading the way in Europe by implementing a modern public warning system even before it became required by the EU Directive (EECC article 110). They have proven that the right technology used by the right people in critical situations can help public authorities fulfill their number one obligation: public safety.

Today, The Netherlands NL-Alert uses the Everbridge Public Warning platform coupled with Everbridge's one2many cell broadcast used with the telecom operators as its main communication channel for emergency notifications.

They can reach 94% of the public in a matter of a few seconds, anywhere in the countries and at any time. In 2019, 173 NL Alerts were broadcast. This allows the Dutch authorities and ministries of justice and security to send alerts to all mobile phones nationwide or to targeted areas, to help protect more than 17 million people and visitors when bad things happen.



Let's Talk

Do you have questions? Want to learn more about Everbridge one2many? [Get in touch](mailto:info@one2many.eu) at info@one2many.eu to learn more.

About Everbridge

Everbridge, Inc. (NASDAQ: EVBG) is a global software company that provides enterprise software applications that automate and accelerate organizations' operational response to critical events in order to Keep People Safe and Businesses Running™. During public safety threats such as active shooter situations, terrorist attacks or severe weather conditions, as well as critical business events including IT outages, cyber-attacks or other incidents such as product recalls or supply-chain interruptions, over 5,400 global customers rely on the Company's Critical Event Management Platform to quickly and reliably aggregate and assess threat data, locate people at risk and responders able to assist, automate the execution of pre-defined communications processes through the secure delivery to over 100 different communication devices, and track progress on executing response plans. Everbridge serves 8 of the 10 largest U.S. cities, 9 of the 10 largest U.S.-based investment banks, 47 of the 50 busiest North American airports, 9 of the 10 largest global consulting firms, 8 of the 10 largest global automakers, 9 of the 10 largest U.S.-based health care providers, and 7 of the 10 largest technology companies in the world. Everbridge is based in Boston with additional offices in 20 cities around the globe. For more information visit www.everbridge.com

ABOUT ONE2MANY, AN EVERBRIDGE COMPANY

One2many was acquired by Everbridge in March 2020. Everbridge, Inc. (NASDAQ: EVBG) is the global leader in critical event management and enterprise safety applications that automate and accelerate an organization's operational response to critical events in order to keep people safe and businesses running faster.

One2many is the pioneer of Cell Broadcast and the leading global provider of cell broadcast solutions for nationwide public warning applications. As an active participant in the standardisation bodies, one2many play a leading role in defining the emergency alerting requirements and end-user experience.

Now, as part of Everbridge, government authorities can leverage a mobile-optimized, full-lifecycle solution for meeting and exceeding EU regulatory and other global initiatives for countrywide population alerting.

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