



EEKT AND ONE2MANY DEPLOY A CENTRALIZED CELL BROADCAST SOLUTION TO DELIVER PUBLIC WARNING MESSAGES IN GREECE

CASE STUDY





CLIENT

The Greek Mobile Operators Association (EEKT) is a non-profit organization founded in 2008. EEKT represents its members (Cosmote, Vodafone, and WIND) on non-commercial issues relating to the Greek Mobile Industry and plays an advisory role with the regulatory authorities. It also participates in the decision-making process of technical or standing committees at local, European, and international levels, cooperating with various authorities and organizations of the mobile telecommunications industry in different countries regarding bilateral and multilateral agreements.

By working together with the three Greek Mobile Operators (MNOs), EEKT is instrumental in identifying and implementing solutions that benefit its members and the Greek public. For instance, licensing agreements, promoting the broadband agenda, and ensuring the MNOs meet their civil protection obligations for nationwide public warning.

■ GREECE AND PUBLIC WARNING

Greek Authorities decided to optimize the management of emergency incidents and situations by implementing a nationwide public warning solution. The Government wanted to move from reactive to a preventative approach when it comes to managing ongoing emergencies. At the same time, they also incorporated Article 110 of the European Electronics Commission Code (EECC) into Greek law, per the updated European Union (EU) legislation. The EECC passed Article 110 in December 2018. Referred to as Reverse 112 in Europe, the EU legislative initiative required all

EU member states to implement a public warning system, which used mobile phone technology by June 2022.

The Greek Government proceeded to upgrade and harmonize the operations and capabilities of the European Emergency Service 112 in Greece. They incorporated the preventative approach, new technology solutions and ensured the project was consistent with the European standards and specifications. The new 112 includes any emergency service (Police, Fire Brigade, Emergency Medical Services, Coast Guard, the European hotline for missing children 116000 and the National Helpline for children SOS 1056).

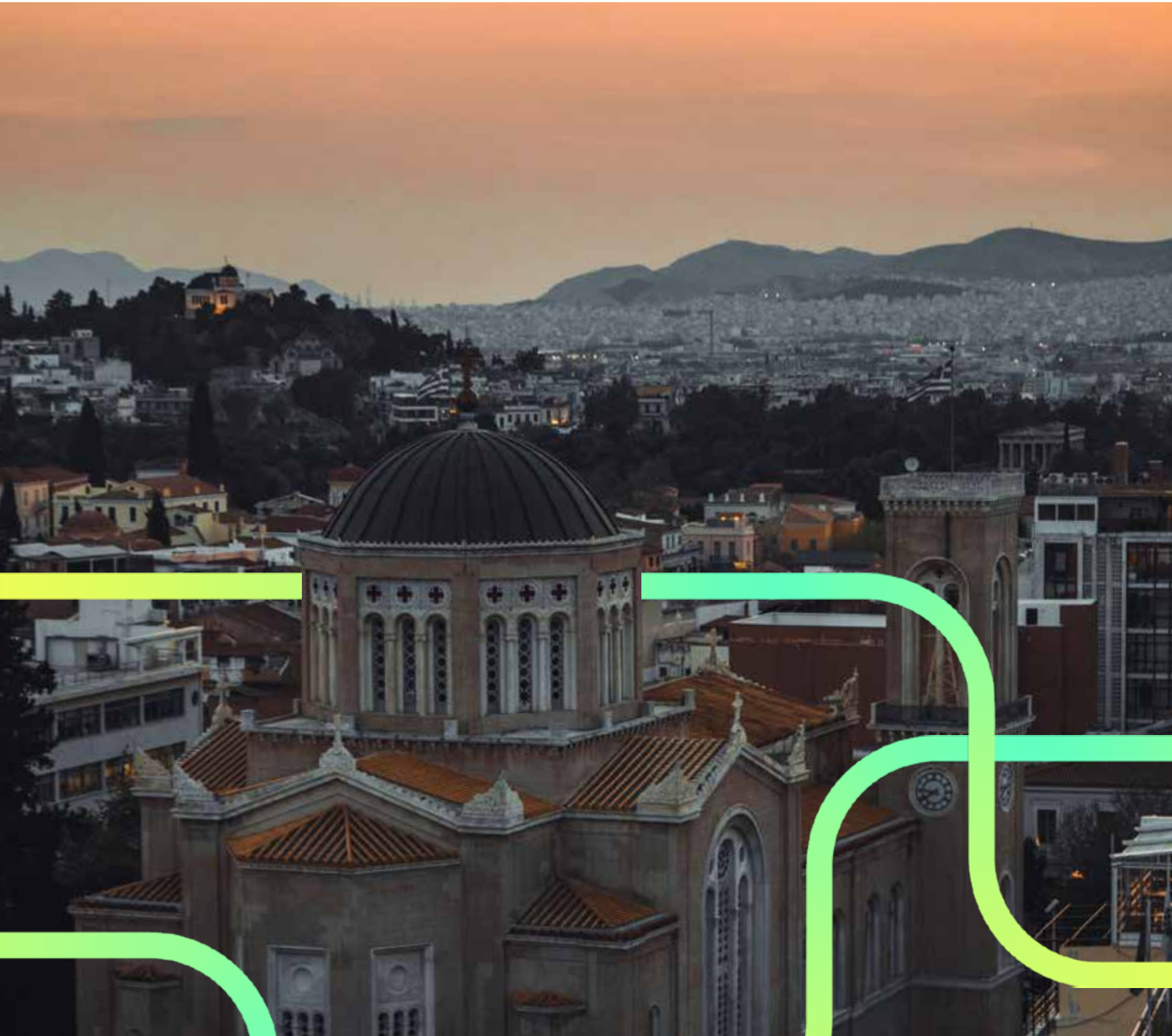
This project focused on the rollout of one of the outbound components for mass alert 112 - the Cell Broadcast Service (CBS). In addition to following the requirements of Article 110, this project involved implementing the updated Greek Telecommunications Law that required national MNOs to deploy and operate the CBS through their networks— at their own cost. Under the leadership of EEKT, the three MNOs decided it was better to approach this as an industry project and not as an individual project for each MNO. The outcome was to deploy a centralized Cell Broadcast platform, independent of MNOs.

The successful execution of the tests last year and the multiple missions throughout 2020 confirms the interoperability of the system and the MNOs networks, as well as the continuous readiness of CB service. The service is available and fully operational throughout Greece.

OBJECTIVES

Given the importance of the EEKT project, its objectives encompassed the whole public warning chain, including:

- Shifting from reactive to a preventative approach for managing ongoing emergencies
- Defining and agreeing on the technical specifications for a public warning solution
- Adopting effective, modern, and future proof public warning tools and solutions
- Working with the Ministry of Digital Governance and Civil Protection to develop the crisis management operating procedures
- Deploying a stable platform to broadcast messages designed for particular crises
- Developing a roadmap for new and extended public warning services





SELECTION PROCESS

From the start, there was a sense of urgency to make this project a success. Selecting the right partner that could support the project's momentum by deploying a robust, proven solution as a single implementation serving all MNOs, with tens of thousands of cells, was essential.

Working in conjunction with the three MNO procurement departments, EEKT issued the tender. EEKT only included vendors with extensive telecommunications experience in the selection process.

The preferred partner to implement the Cell Broadcast Service of the public warning project was Ericsson (contractor) and one2many (subcontractor).

Besides the Cell Broadcast Center's quality, three elements set one2many apart from the other vendors.

1. one2many's public warning experience, both within Europe, with the Netherlands NL-Alert project and Internationally, with the New Zealand Emergency Alerting project, was very advantageous.
2. one2many's active involvement in the industry standards bodies ensured that the solution was standards compliant. Standards compliance is essential when interfacing with three MNO's different Radio Access Network (RAN) equipment.
3. one2many was unfazed by the project's tight timeframes and, as a RAN agnostic vendor, even proposed ways to speed up the migration and integration of all the RANs based on their previous experiences.

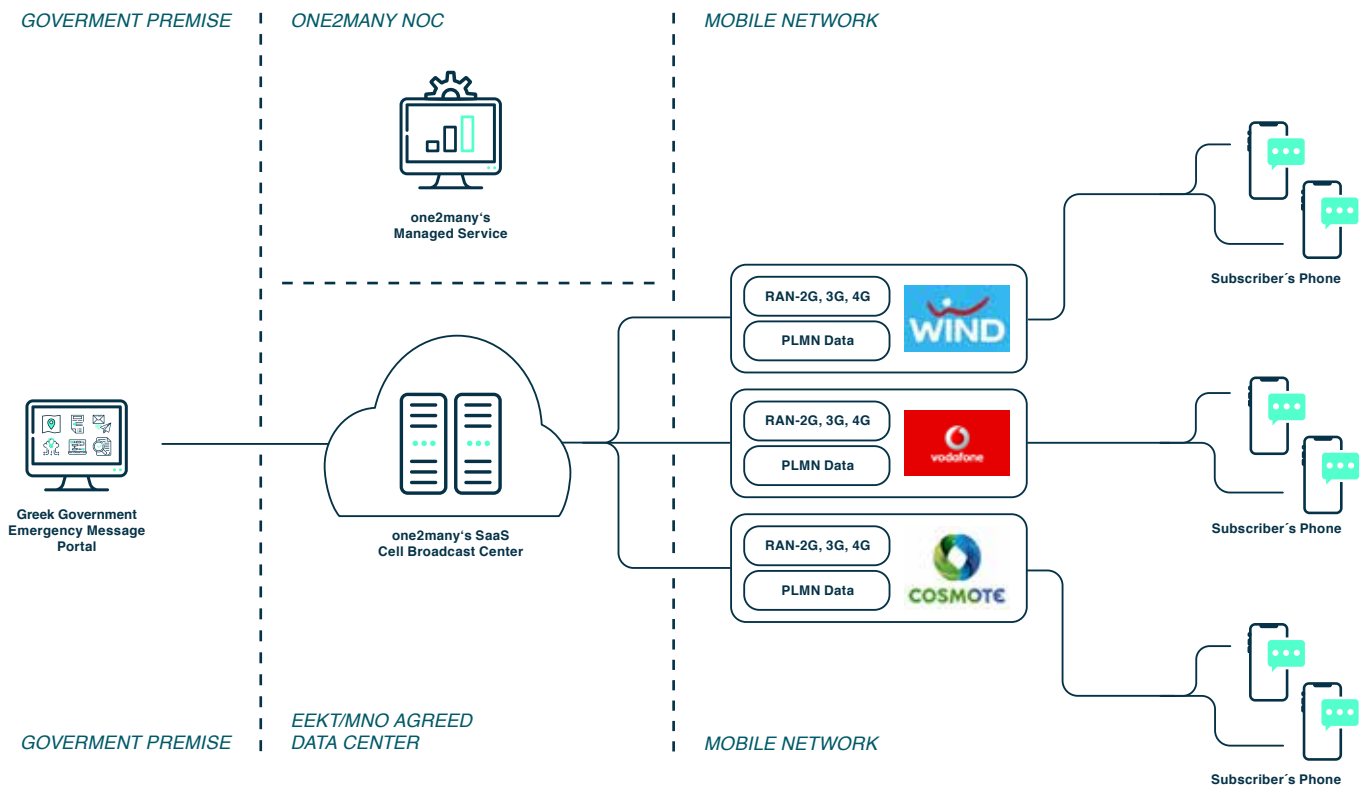
SOLUTION

one2many's centralized, managed Cell Broadcast service enables EEKT to establish a nationwide Cell Broadcast based public warning solution, alerting the Greek population of risks, disasters, and/or emergency situations in terms of civil protection.

The solution consists of a SaaS based, centralized Cell Broadcast System integrated with all MNO

networks and interfaces with the existing Cell Broadcast Entity (CBE) of Civil Protection Greece. It is deployed into the EEKT – MNOs agreed data center, with one2many providing 24*7 Network Operation Center (NOC) monitoring of the end-to-end Cell Broadcast Service.

HIGH LEVEL OVERVIEW OF CENTRALIZED GREEK PUBLIC WARNING CELL BROADCAST SOLUTION





IMPLEMENTATION STAGES

For a nationwide public warning solution to be effective, all aspects of the end-to-end process chain need to work together flawlessly. The Cell Broadcast Solution is an essential tool in that chain.

There were three high-level implementation stages.

1. The initial stage focused on the Data Center, working together, one2many and EEKT defined and agreed on the equipment specifications. one2many supplied the necessary equipment and set it up in the Data Center. From vendor selection to having the Cell Broadcast Solution installed in the common infrastructure was achieved in just two months.
2. Once one2many installed the Cell Broadcast Solution in the Data Center, the EEKT project team performed extensive testing. Upon successfully completing the rigorous UAT plan, the solution was declared Ready for Acceptance.
3. The final stage revolved around the integration of the solution to all the RANs of the three MNOs.

With time being of the essence, the commitment to roll out a successful solution was high across all parties. The project kicked off in July 2018, with Ericsson and EEKT leading all project management activities.

From tender, vendor selection, delivery, and commissioning took less than six months. EEKT, in cooperation with Civil Protection Greece, sent the first test broadcast message at the end of January 2019.

George Ntalas (Cosmote), Technical Project Manager for the MNOs, commented, “We didn’t imagine we could do it in such a short time. Whenever we needed one2many, they were there. It was reassuring to have a partner that demonstrated such commitment.”

The whole team worked long days, included late nights, weekends, and even over the Christmas period in 2018, to meet the project deadlines.

RESULTS

The speed at which the team completed this life-saving project is a testament to three interworking elements.

- EEKT's leadership liaising with the Government secured clear direction and buy-in.
- The three Greek MNOs set aside individual commercial goals to work as one. This close collaboration is a showcase of what can be achieved in such a short period for the public's safety.
- one2many's expertise in both the telecommunications domain and nationwide public warning, combined with the high customer service, ensured a successful deployment of a world-class solution.

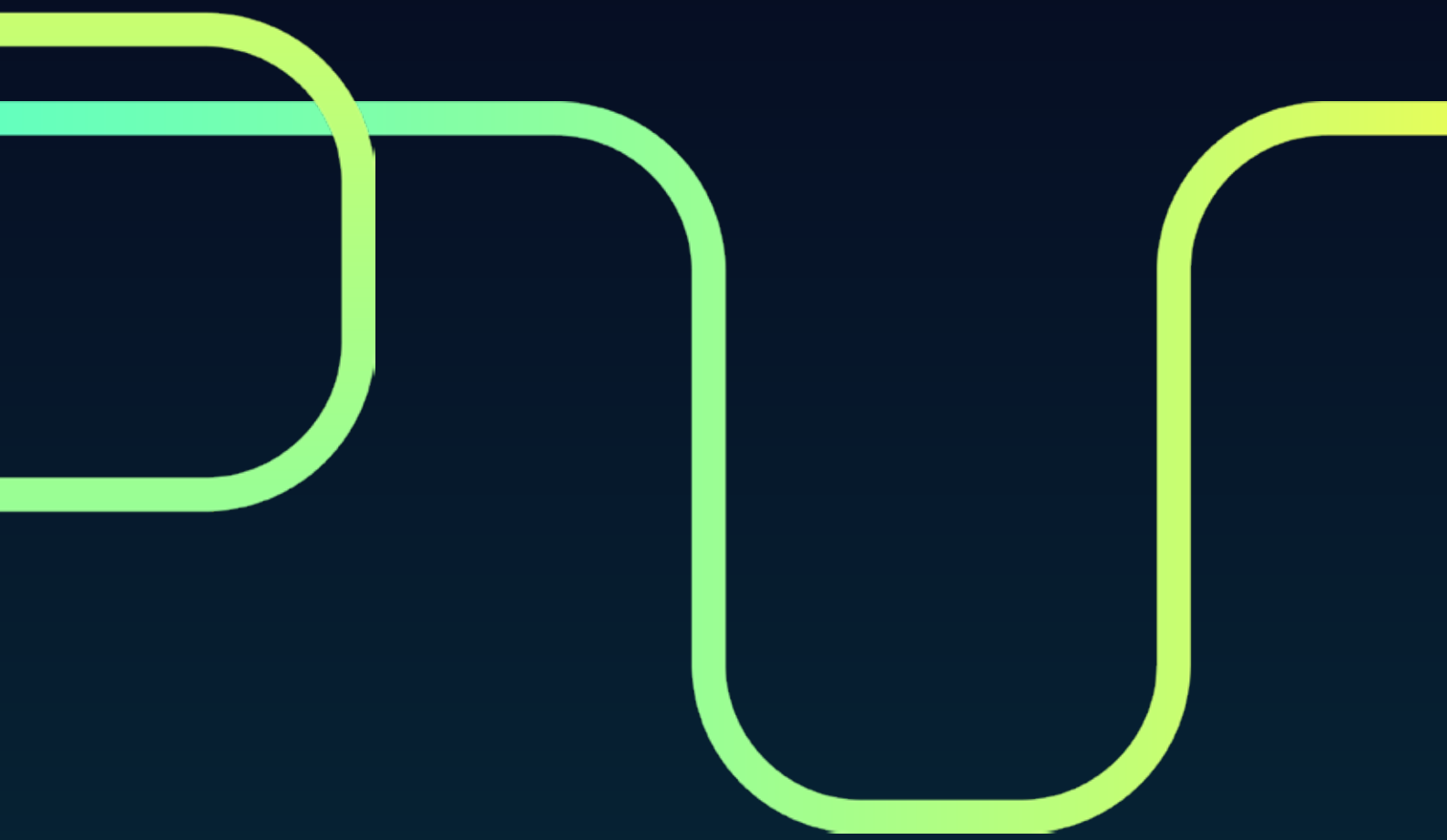
From the first public emergency broadcast in May 2019, confidence levels in the nationwide public warning solution continued to grow. Today, the solution is fully utilized across small localities and

nationwide. Most recently, the Cell Broadcast solution sent emergency alerts to the inhabitants of Cephalonia, Zakynthos, and Ithaca islands regarding the hurricane-force winds. And the Government uses the solution to send information and updates regarding the COVID-19 lockdown measures.

George Stefanopoulos, EEKT General Manager, observed that life is about collaboration, and in times of crisis, working together can save lives and minimize catastrophes. "I'm proud of the results of everyone involved in the project. one2many played an important role in helping us achieve our goal."

According to EENA, the public warning solution in Greece is one of Europe's first implementations to adhere to the EECC December 2018 mandate. It stipulated that Cell Broadcast technology be used for delivering public warning messages to the general public.





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