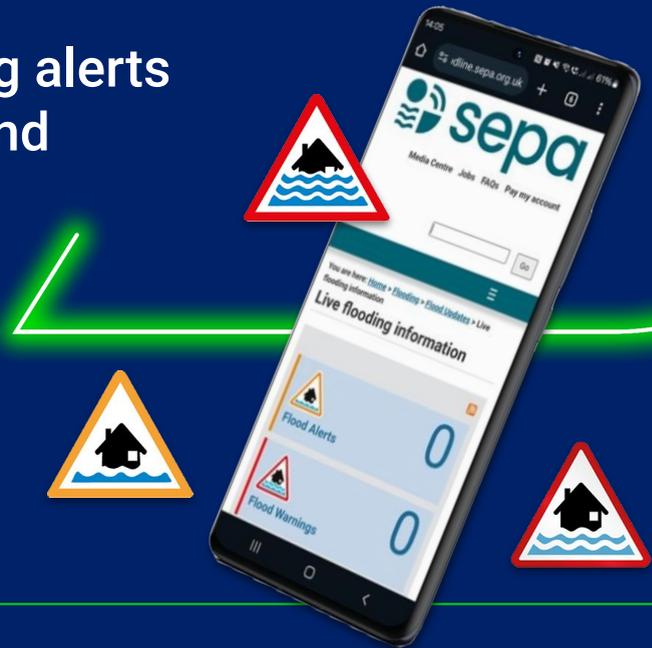


Case Study

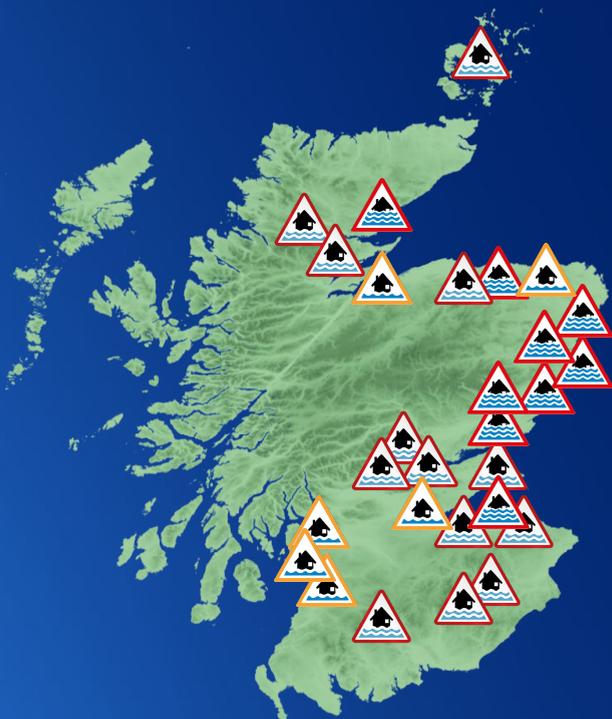
Providing critical flood warning alerts to communities across Scotland

Developed for the Scottish Environment Protection Agency (SEPA) and the Met Office, the Scottish Flood Forecast provides the earliest indication possible of when and where flooding is expected over the next three days, and whether the source is from rivers, surface water or the sea. The forecast is produced daily, 365 days a year, and published on SEPA's website so citizens can take effective action to protect themselves and their property in times of crisis.



The Challenge: Delivering reliability and accuracy in times of crisis

Since 2011, Scotland's Flood Warning Dissemination system has issued regional flood alerts and local flood warnings to at risk areas **24 hours a day, seven days a week**. With over **32,500** registered citizens under their watch, it's a big task.



The Scottish Environmental Protection Agency needed a solution that could not only handle large volumes of complex data in real-time, but a solution that was both robust and reliable in times of crisis. One that could help manage emergency communications in a more targeted, automated way, whilst reducing the load on their staff and ensuring that citizens get the critical alerts they need.

Wherever there's any kind of environmental incident, such as flooding, drought or forest fires, it's imperative to get the right message to the right people in the areas that are affected - efficiently, quickly and clearly.

SEPA turned to HTK (partnered with BT) and the Horizon platform to enhance their citizen alert and communications systems. As part of their strategy, SEPA was also planning to extend their range of public alert services to include water scarcity messaging to abstraction and irrigation licence holders, reservoir inundation warnings through UK Emergency Alerts, and business continuity messaging to staff and partners - ideally all through the same platform.



The Solution: Future-proof and scalable communications

HTK has provided the technology for SEPA's flood warning dissemination solution since 2011, with the contract being extended for a further 12 years in 2022 to deliver a major refresh in the service scope and technical capabilities.

The objectives of the SEPA Future Flood and Incident Messaging Service (FFIMS) were to:

- Enable communication through customers' preferred channels, including mobile applications and social media, and to embrace new emerging channels.
- Expand the visibility and reach of the service into different customer segments, including hard-to-reach communities and transient populations.
- Personalise communications based on customer location, preferences and various data sets as appropriate, to increase customer satisfaction.
- Automate end-to-end processes to accelerate the speed of delivering early - and more targeted - warnings, linked to the three-day forecast.
- Introduce new services beyond flood warning, by taking a customer-centric approach to service delivery and providing a framework for customer feedback and innovation.
- Securely expose data, through a range of industry-standard API protocols, to third-party systems for downstream analysis and processing.

SEPA also benefits from Horizon's data integration capabilities and powerful geospatial and rule-based segmentation tools, which group citizens, business users and Category 1&2 responders by their precise locations on a map.

Horizon automatically updates these segments based on real-time data, meaning that SEPA can quickly and confidently send notifications and messages at any time - without worrying about data accuracy. These automated end-to-end processes accelerate the speed of delivering early - and more targeted - warnings, and to reduce the workload on SEPA Duty Officers.



Marlon Bowser

Chief Executive Officer, HTK



"We are delighted that our Horizon platform continues to underpin the significant evolution of the Floodline service. SEPA has a pivotal role to play in helping communities avoid flood risk where they can, adapt where they cannot, and take action when warned of flooding.

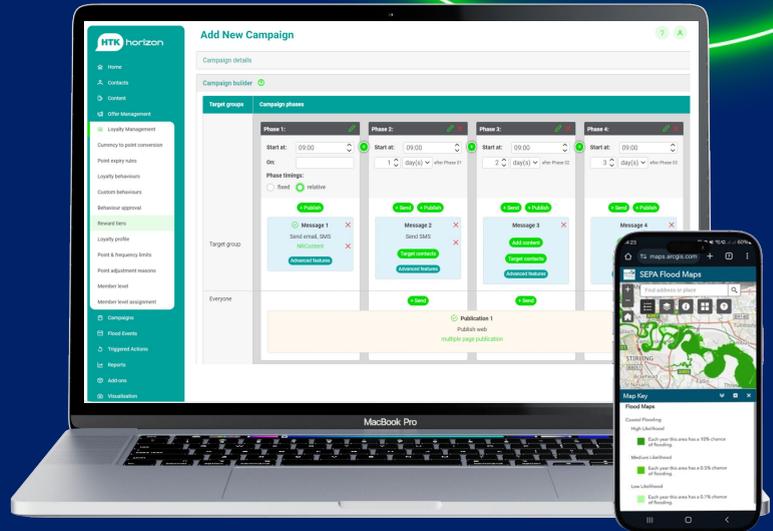
Horizon has helped to deliver a resilient and innovative platform that continues to support communities and public servants - and will for many years to come."

Solution Focus: Horizon

HTK's robust cloud-based Horizon platform is designed to perfectly meet the challenges of delivering flood warnings.

The platform is highly scalable and can handle large volumes of traffic from multiple sources and data points, along with a number of features that make it ideal for delivering targeted warnings - such as the ability to use geospatial data to target warnings to specific addresses.

Accessing Horizon through a standard web browser, SEPA is able to effectively manage their flood warnings and tailor their response to the level of threat and the specific target areas - as well as key audience segments based on live meteorological and geographical data.



The Results: A highly scalable solution that continues to evolve

The Horizon platform used by SEPA has been benchmarked, and load tested, to deliver sustained performance in excess of **430 outbound messages per second** (equating to more than **1.5 million messages per hour**).

Alongside the delivery and performance statistics of the platform, SEPA has not only achieved but continues to outperform their organisational objectives.

- The SEPA solution delivers enhanced visibility and expanded reach of the service into multiple diverse customer segments, including hard-to-reach communities and transient populations.
- SEPA can effectively manage communications and alerts through customers' preferred channels, including mobile applications and social media, whilst embracing new channels as they emerge.
- Personalised communications are based on customer location, preferences and zero-, first- or third-party data sets as appropriate, to increase customer value and satisfaction.
- SEPA's warn and inform communications platform operates 24x7x365 with 'mission critical' service availability, providing rapid dissemination of messages at scale, with unparalleled operator ease of use.

HTK is supporting SEPA and their discussions with Google, to enable flood warning information to be prominently displayed within search results and on Google Maps.

The Horizon platform now also supports integration with UK Emergency Alerts via the Common Alerting Protocol (CAP), for notifying citizens through mobile messages similar to SMS, based on their current geographical location and irrespectively of whether they've signed-up to receive flood warnings, and is currently being integration tested with the UK Cabinet Office with a view to going live for SEPA in 2024.

Get in touch today to discuss your communications and engagement objectives and schedule an online demo. Just send a message to

hello@htk.co.uk.