

Early Warning System for Floods



Predicts flood situation and make people and officers act in time to avoid floods, save people and properties people and properties

Every year, more than 20,000 people die in natural disasters in India. A lot of these lives can be saved by agile communication, which will spread the information faster. We need an information expressway in these times of disaster.

Most of the disaster management tools and solutions works in isolation. Due to inadequate and slow relief, lack of Co-ordination between agencies like Fire, Police, Hospitals etc. and lack of co-ordination between rescue teams of government, NGOs, International agencies and private sectors agencies, slow rehabilitation and reconstruction and poor management of finances for post-disaster relief results in loss of lives and properties.

Early Warning System for Floods (EWSF)

“Take swift decisions in time of disaster. With interdepartmental connectivity between Police, Fire and Hospitals, our disaster management software solution helps the government to stay ahead”

EFWS is an Early Flood warning solution aims at providing help to the government in preparedness, response and recovery to lessen the impact of disasters. It helps in sending quick alerts to citizens via automated SMS and phone calls which can be broadcasted to the citizens living in properties located at the area of impact. Pre-recorded voice messages can also be broadcasted to the citizens. It uses IoT sensors to get weather details. It interconnects the activities of fire department, the police department and the hospitals to easily co-ordinate during emergencies and maximizes their ability to take quick actions at the time of urgency. If the disaster affects the government headquarters, alerts can still be triggered from anyplace.

Our disaster management system which uses IOT Sensors on the upstream location of the rivers and can give real time information and alerts of a possible flood to the Villages/Towns downstream in real-time hence reducing majorly on the loss of life and property. Citizens are alerted via SMS during the day and in the night they are alerted via Pre-Recorded phone calls.

Intel®-Based Early Warning System for Floods: Real time targeted alerts, cloud power

Early flood warning system (EFWS) comes up with the platform which predicts flood-like situation and make people and officers act in time to avoid disaster and save people and properties at a district level.

- It consist of IoT based – Rain Gauge + Ultrasonic sensor + Hooters which provides effective and efficient real time data.
- It also enhances the co-ordination between the officials and the beneficiaries by using Communication tools like Auto generated calls & SMS to the authorities. It also comes up with the flood maps to co-relate threats to various towns and villages by data analysis of previous flood reports.
- For monitoring and control the entire system a central hub station setup is required so that the entire action can be performed effectively.
- Web application as well as mobile application is developed for monitoring real data and to generate genuine notification for any updates or for any action seeks attention. The authorised user can also perform necessary action through application, for example: to generate SMSs or to blow the siren in a particular region.

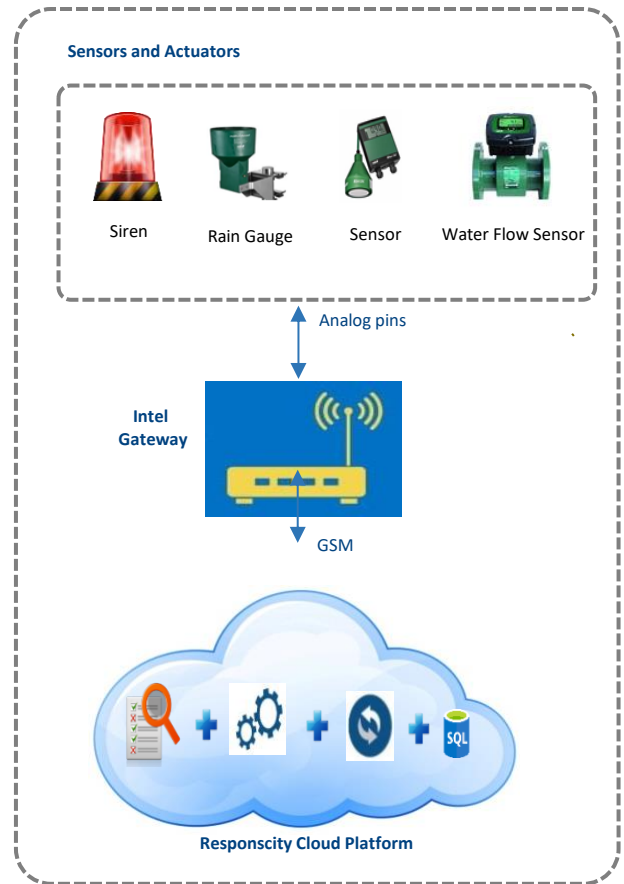


Figure2: High-Level Architecture Solution

Intel® IoT Platform

The Intel® IoT Platform is an open, standards-based, end-to-end reference model and family of products that enable third-party solutions. Intel based gateways form the backbone of data aggregation for IoT powered Energy Management Solution. It gives enterprises the capability and connectivity to build on a rock-solid IoT foundation. Proven Intel scalability, security, performance, and remote manageability make it the right fit for immediate deployments, while simultaneously future-proofing any IoT-powered Energy management roadmap.

Solution Components

- Rain gauge calculate the amount of rainfall in a particular region, and pushes data to Intel gateway.
- Water level indicator calculate the amount of water in a particular region, and pushes data to Intel gateway.
- Each District and village have an Intel Gateways that aggregates data from a variety of sensors and sends to cloud.
- Early Warning System for Floods Solutions on the cloud creates alerts.

Value Proposition

- In the time of disaster, interdepartmental smart connectivity between government entity
- End to End solution helps the government to stay ahead
- Save human life with proactive preparedness of disaster
- Taking swift decision in times of disaster

Learn More about IoT

- Find the solution that's right for your organization.
- For more information, contact your Intel representative, or visit intel.com/iot.
- To learn more about Intel® IoT Gateway Technology, visit intel.com/iotgateways.
- To learn more about Resonscity, visit www.resonscity.com