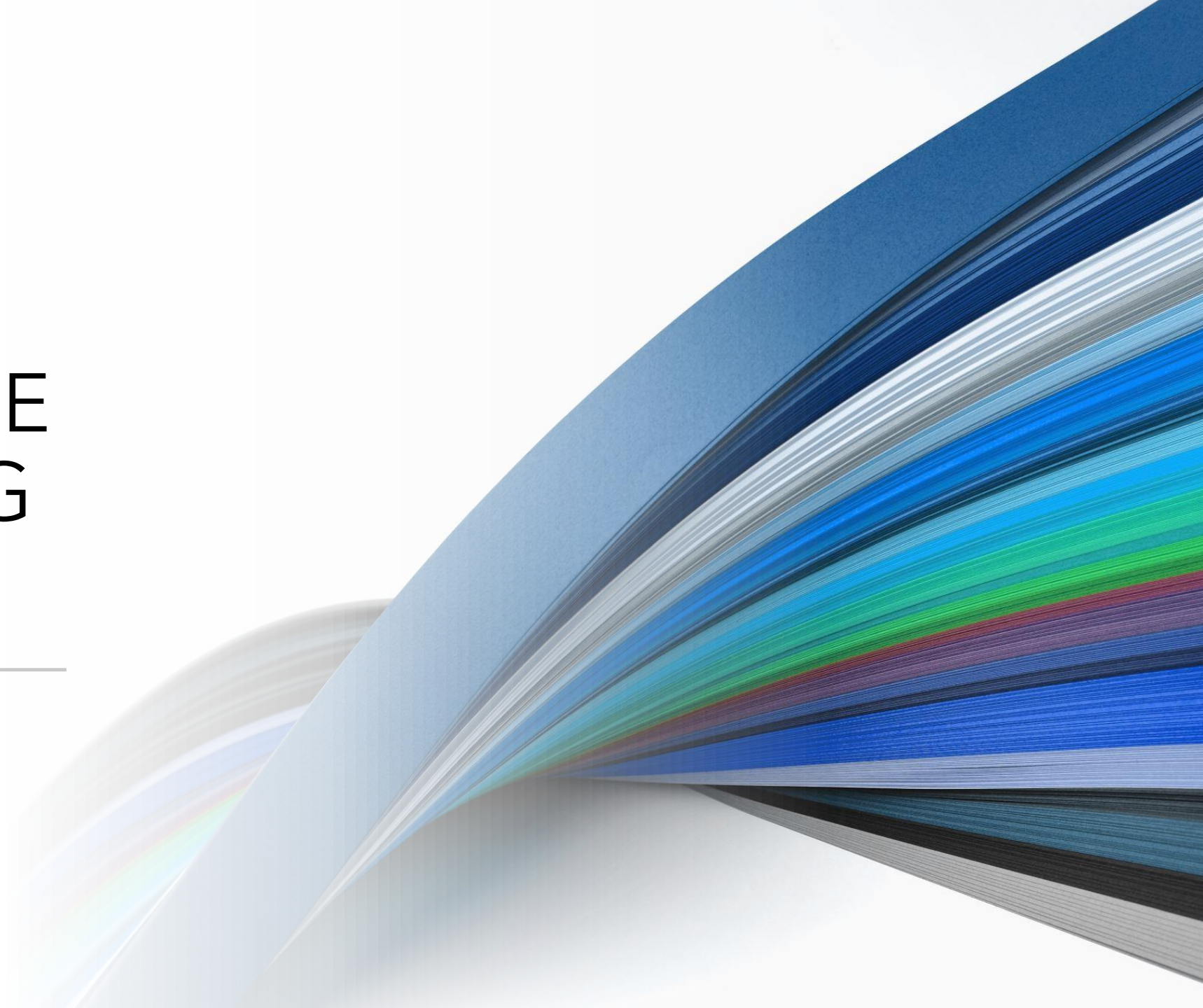
GAS LEAKAGE MONITORING SYSTEM

DISASTER RESILIENCY



Team GoBig Or GoHome

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Background

- Rwanda has issued a directive that all citizens will use natural gas for residential and industrial applications. The efforts are to move away from the use of charcoal, coal, and firewood.
- The first step would be to educate the citizens on safety measures while operating LPG appliances in residential units, garages, service stations, hotels, and manufacturing industries.

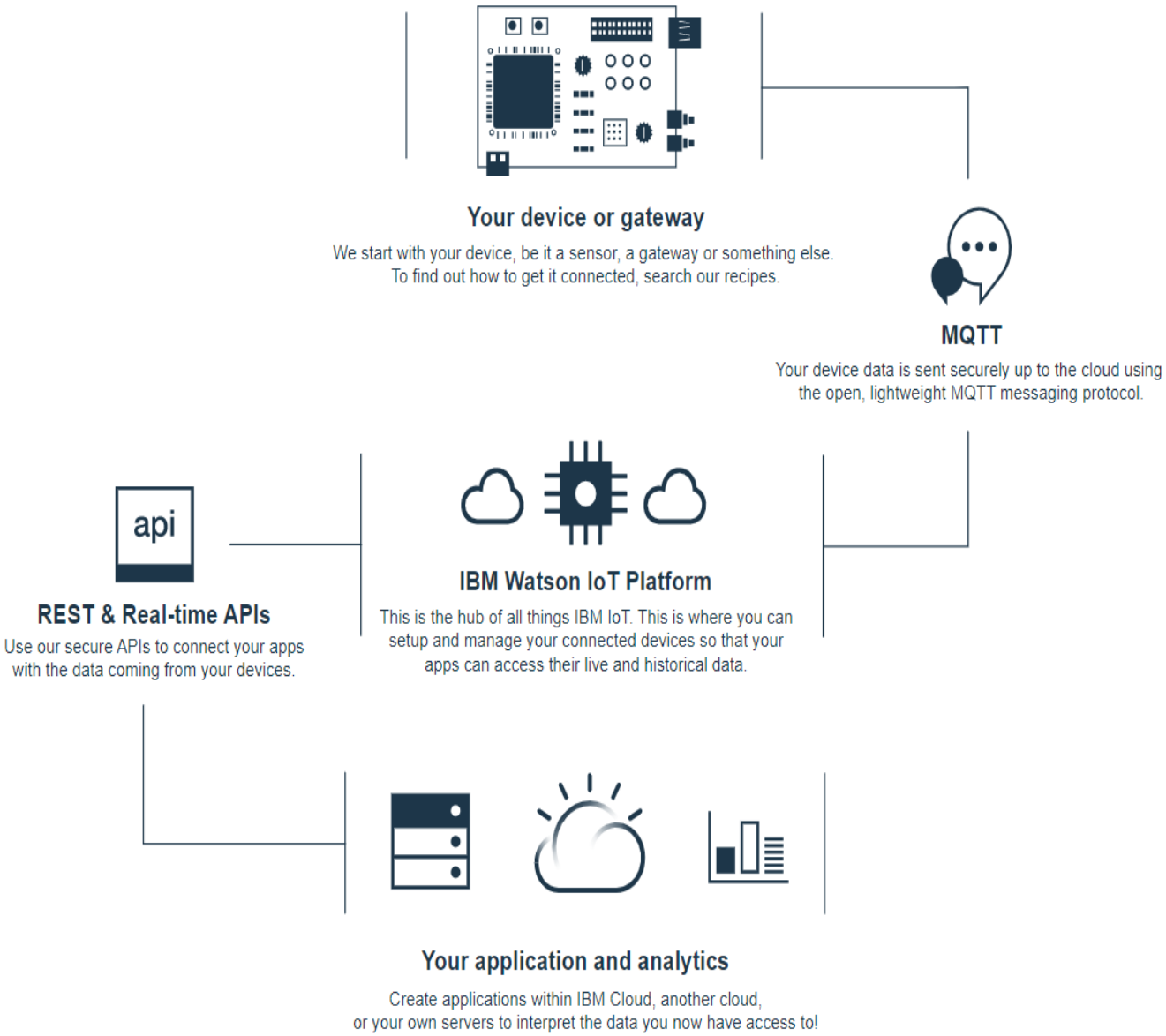
Problem statement

- Fire and explosion are the most important and most unfortunate events that threatens human life in public buildings and industrial complexes.
- The Liquid petroleum gas (LPG) has been involved in major fires and explosions with historical survey indicating that of 22.52% of the road accidents were as a result of a tanker explosions.

Proposed solution

- Use a gas leakage sensor (MQ6 – propane, butane, LPG) to detect a gas leakage and share the data. The system should trigger an alert to the system owner.
- Further, the system triggers the control unit to turn off the gas unit (large scale) or send an SMS alert to the home-owner (residential use).

Roadmap


Your device or gateway
We start with your device, be it a sensor, a gateway or something else.
To find out how to get it connected, search our recipes.
MQTT
Your device data is sent securely up to the cloud using
the open, lightweight MQTT messaging protocol.
api
REST & Real-time APIs
Use our secure APIs to connect your apps
with the data coming from your devices.
IBM Watson IoT Platform
This is the hub of all things IBM IoT. This is where you can
setup and manage your connected devices so that your
apps can access their live and historical data.
Your application and analytics
Create applications within IBM Cloud, another cloud,
or your own servers to interpret the data you now have access to!

Resources

- IBM Watson IoT Platform
- ESP32 Microcontroller
- GPS coordinate system
- IBM Cloud Dashboard (Nodejs)