

2.3. Underground Pipeline On-line Monitoring and Control System



**Problem**

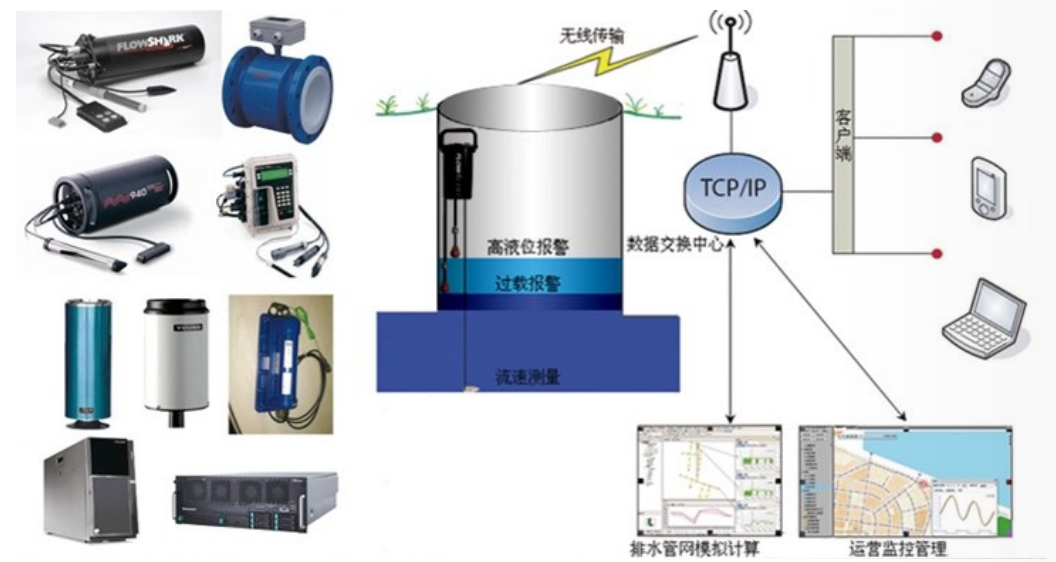
- Large number and complex of underground pipelines
- Pipeline construction and management lag behind urban construction
- Accidents occur frequently in pipeline construction, operation and maintenance

**Solution**

High and new technologies and methods such as the Internet of things and 4G communication network are adopted to carry out information collection, data processing, intelligent control, and then coordinate the construction of various professional pipeline data collection, management and update systems and underground pipeline safety operation monitoring systems.

2.3.1.Drainage Monitoring

The online monitoring module can master the real-time water quality of the sewage pipe network and supervise the pollutant discharging enterprises to discharge according to law. When the water quality seriously exceeds the standard, it can timely remind the downstream sewage treatment plant to take effective countermeasures to prevent the effluent water.



Pipeline data collection and monitoring

- IReal-time acquisition and monitoring
- IHistorical query analysis
- IStatistic analysis

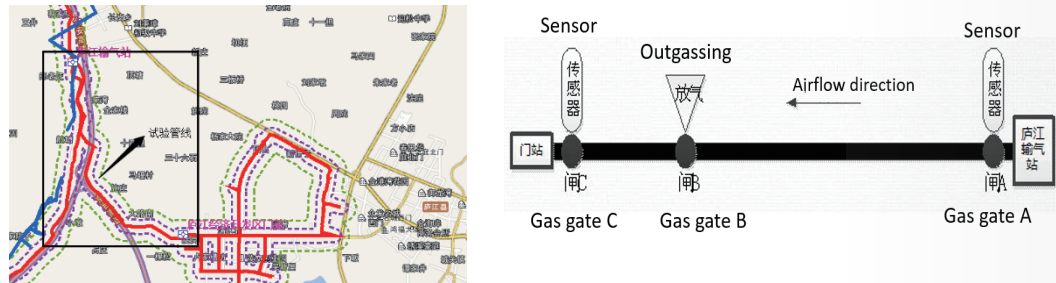
Cooperative scheduling capability

- online control system and the inspection and maintenance system to carry out emergency treatment and dispatch orders for emergency repair.



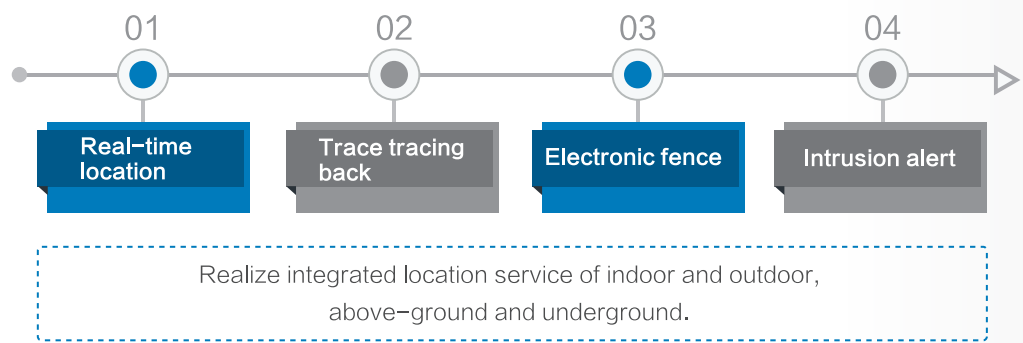
2.3.2.Gas Monitoring

- Gas leakage warning.
- The pre-warning system releases warning information, timely evacuates people in the area, and initiates emergency response.
- Carry out emergency treatment and dispatch orders for emergency repair by online control system and the inspection and maintenance system.



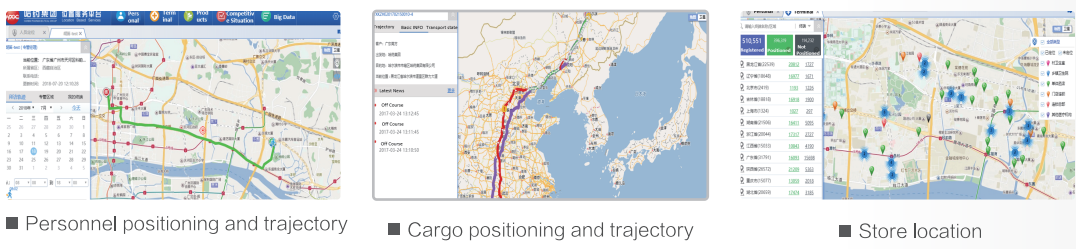
3 Location-based Applications

3.1. Location Service



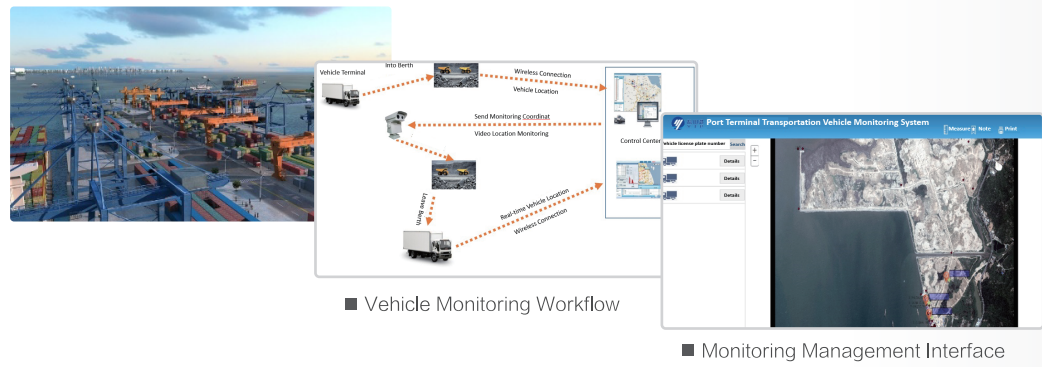
3.1.1.HARBIN PHARMACEUTICAL GROUP Location Based Services

Real-time monitor the working status of field personnel, and through track playback to monitor whether there are problems such as running a private affair or staying too long when visiting a shop.

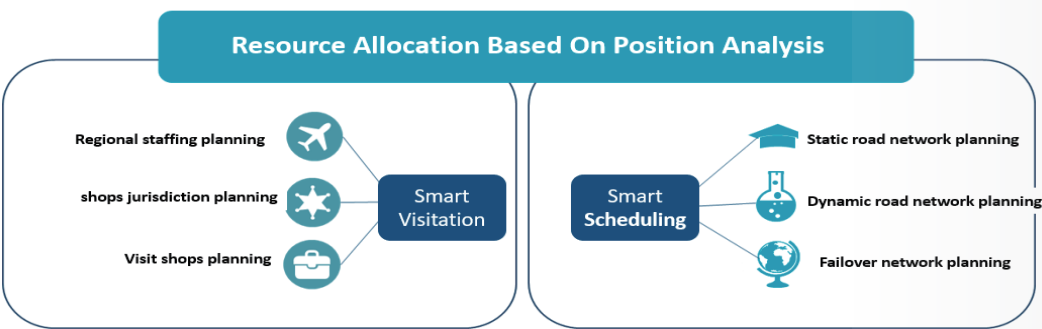


3.1.2.Port Terminal Transportation Vehicle Monitoring System

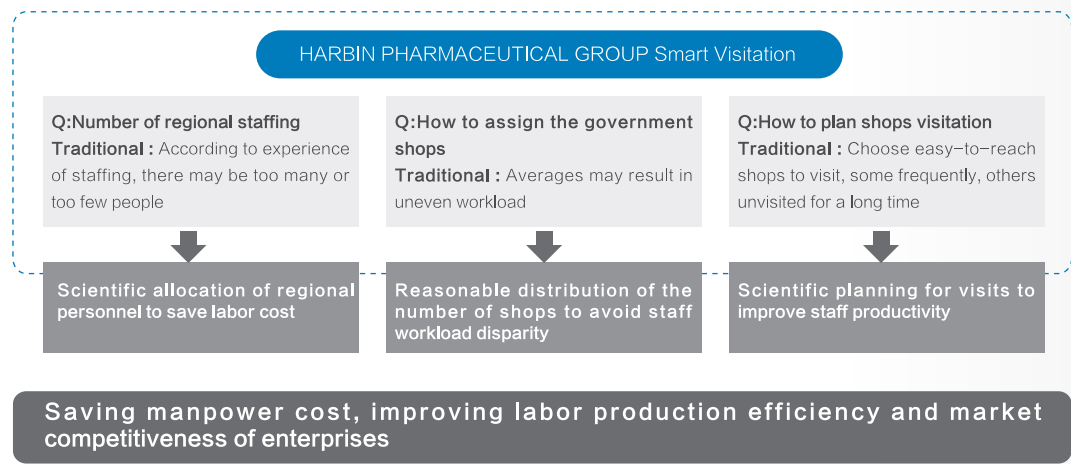
Automated matching of cargo yard vehicles in and out of parking spaces and video surveillance, and automatically sense the loading and unloading behavior of vehicles. Instead of the original way of manually tracking and monitoring, it effectively avoids human errors and reduces the operation cost of the freight yard.



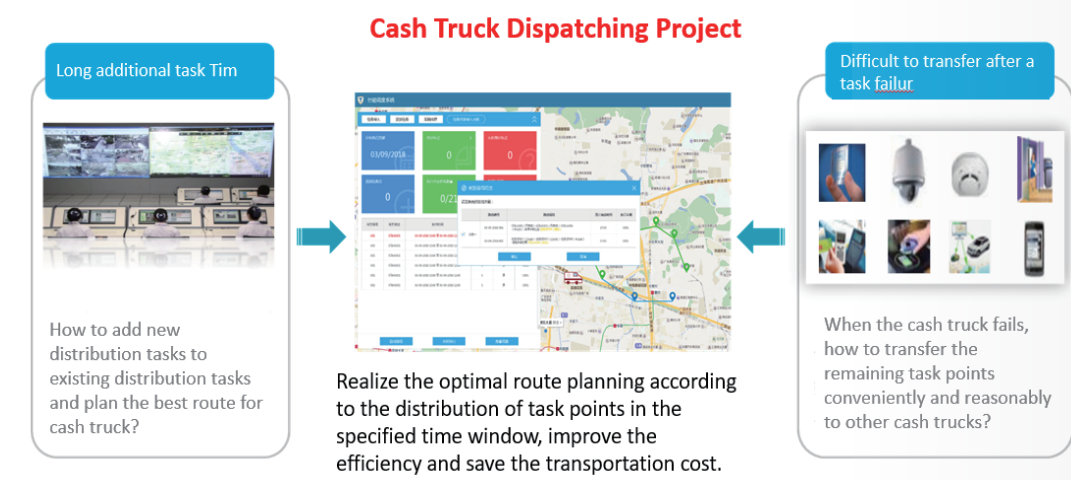
3.2. Location Analysis



3.3.1.HARBIN PHARMACEUTICAL GROUP Smart Visitation



3.3.2.Cash Truck Dispatching System



SOLUTIONS TO SMART APPLICATIONS & LOCATION-BASED SERVICES



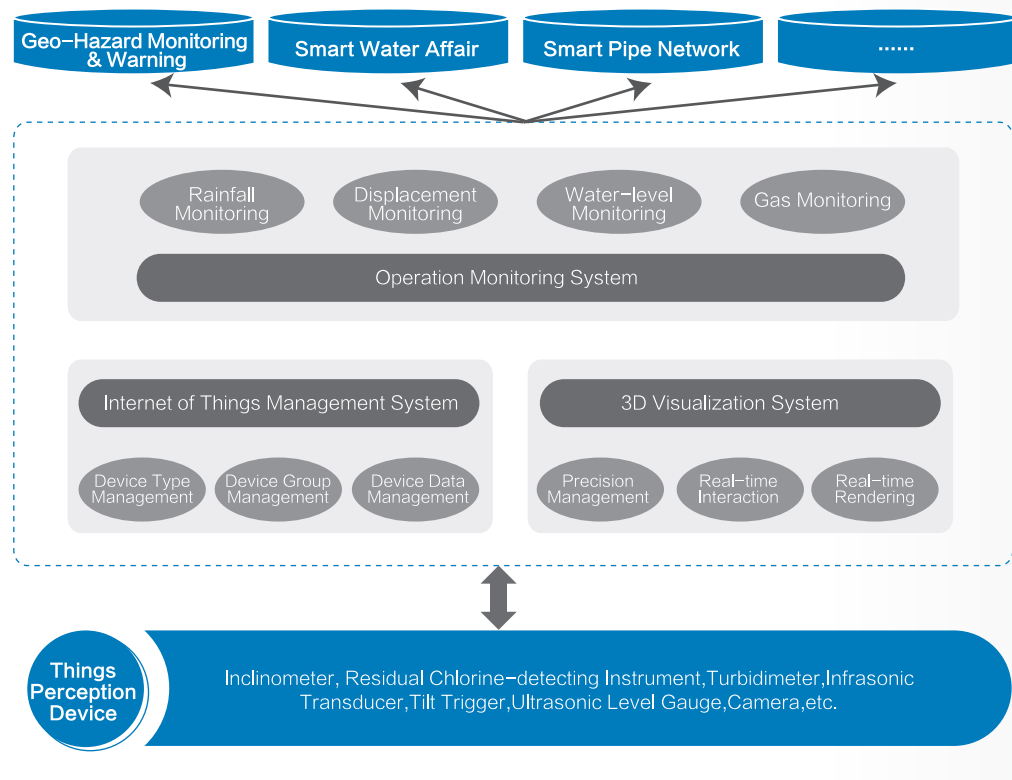
## 1 ABOUT US

Established in 2003, SouthGIS is a leading geo-information service provider in China that addresses data, software and services as a whole. Known as one of the Top 100 Enterprises in China's geo-information industry, SouthGIS, with headquarters in Guangzhou, covers the full range of GIS field for professional and dedicated services.



■ CMMI Level 5    ■ Class-A Surveying & Mapping    ■ Class-B Information System

## 2 Smart Applications | Enabling Business Intelligence



### 2.1. Geo-hazard Warning System

An integrated platform for collection, transmission, management, analysis, prediction, decision-making and publication of geological hazard information is realized by combining pre-warning model with GIS platform.

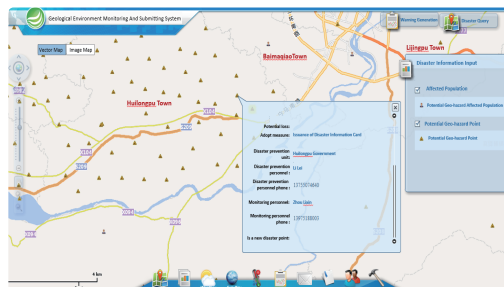


This system aims at the geological disaster management department, improves the ability of disaster prevention, mitigation and relief, and ensures the safety of people's lives and property and social stability.



#### 2.1.1. Geo-hazard 'One-map' Geo-information System

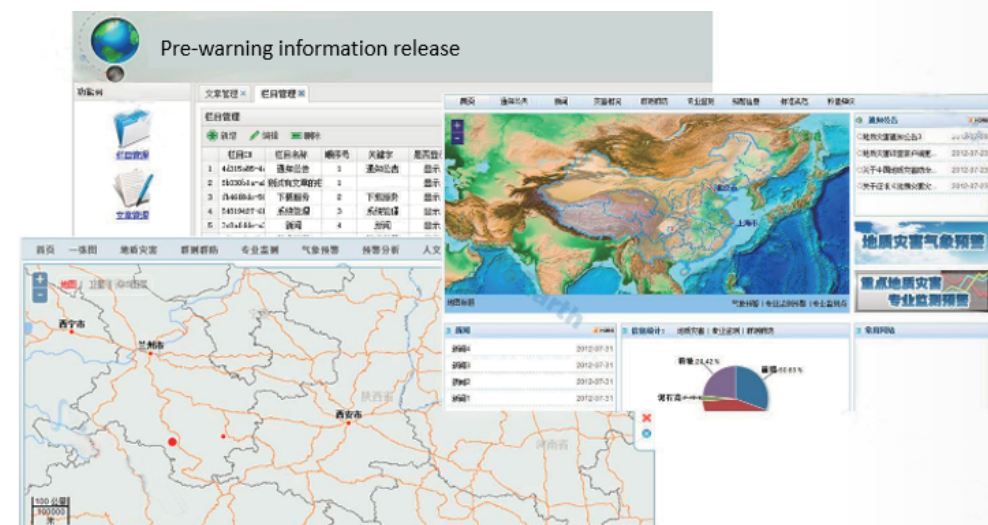
Carry out 'one-map' visual management for prevention of local geological hazard.



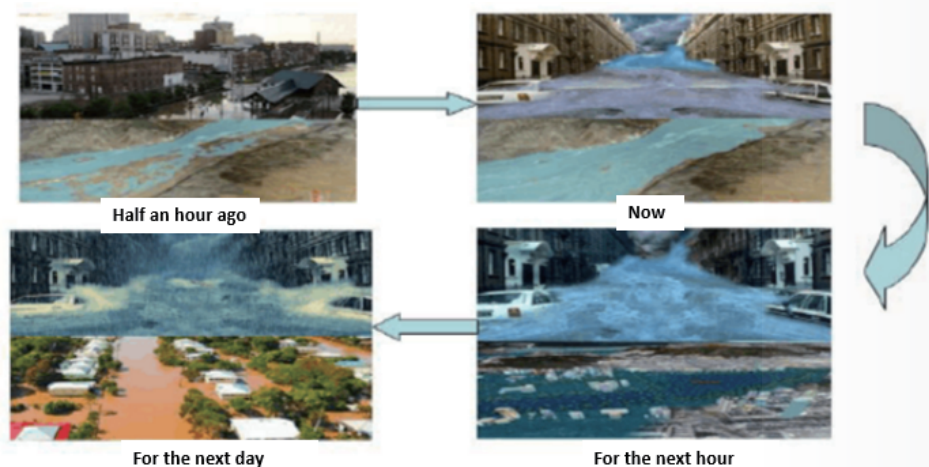
■ Geo-hazard Comprehensive Management System



■ Real-time video monitoring interface



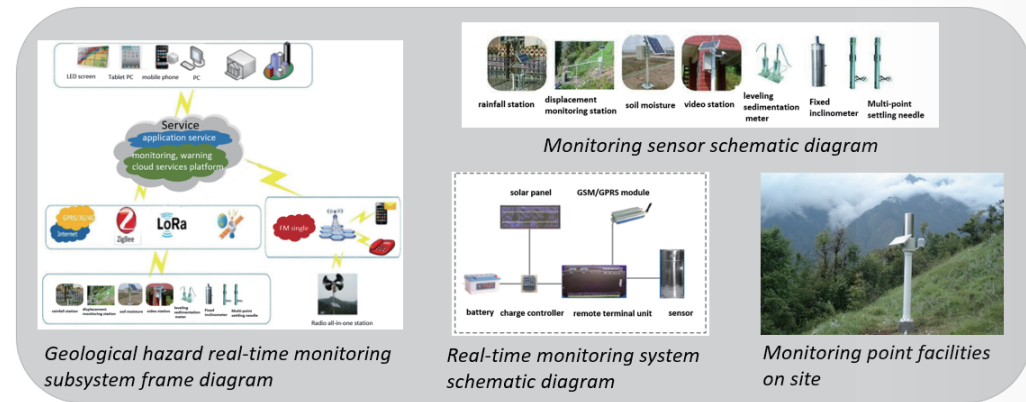
■ Pre-warning analysis and release interface



■ Geological hazard simulation - rainfall

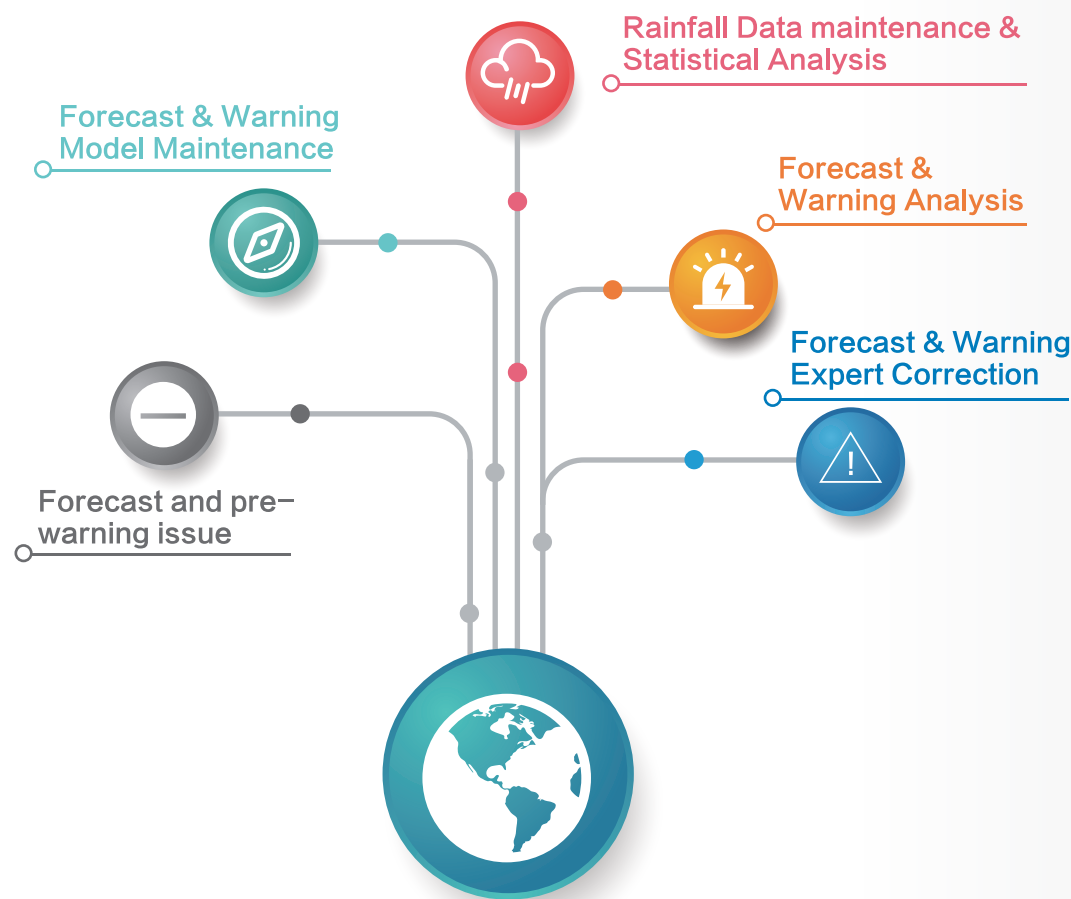
#### 2.1.2. Geo-hazard Real-time Monitoring Subsystem

Collect real-time multi-dimensional data of hidden danger points, to provide accurate and reliable analytical data for disasters forecasts.



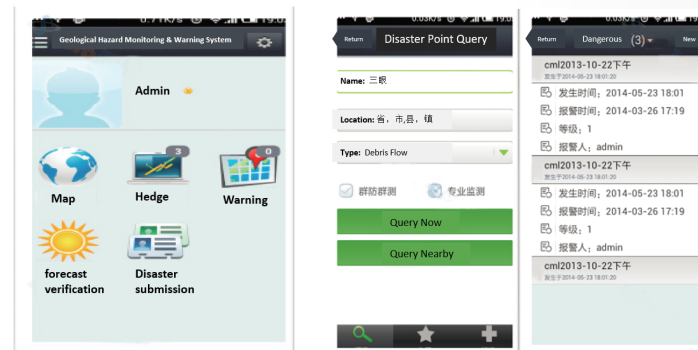
#### 2.1.3. Forecast & Warning Model Analysis Subsystem

Supports full automatic, manual intervention and timing etc. for prediction and pre-warning analysis.



#### 2.1.4. Geo-hazard Mobile Subsystem(Geo-hazard APP)

Query the relevant information of hidden danger points, accept pre-investigation and emergency plan, conduct investigation and evidence collection, etc.



### 2.2. River Environmental Control Management System

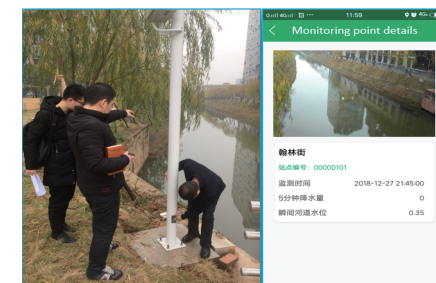
#### 2.2.1. Serious Situation

At present, water resources are facing a very serious situation. Serious water pollution, deterioration of water ecological environment, water shortage and other problems are increasingly prominent.

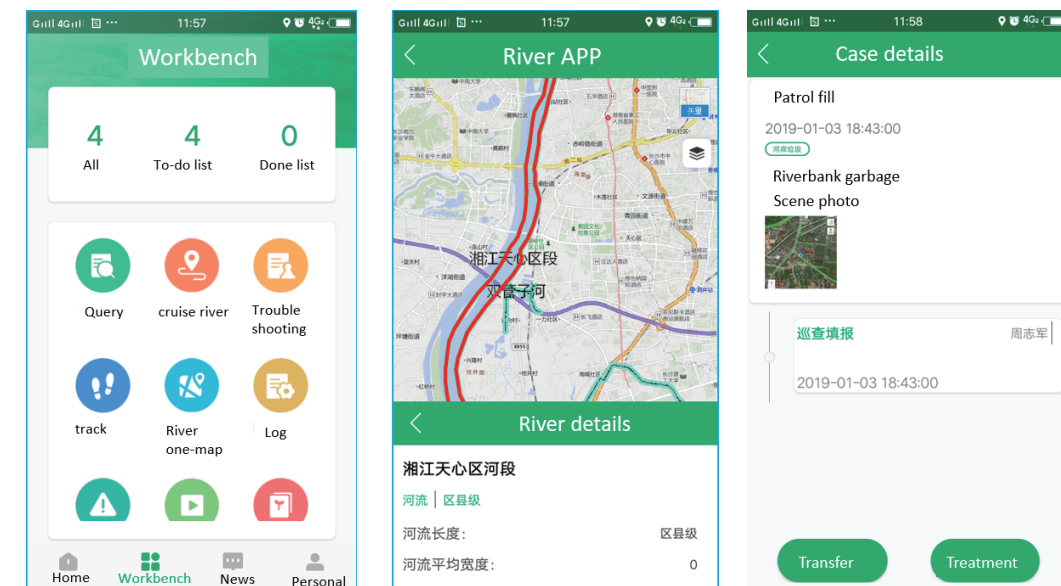


#### 2.2.2. River Environmental Control Management System

- Installation of water and rain monitoring stations for river rainfall monitoring.
- Provides timely warning for the rainy season flood control.
- Monitoring of abnormally floating objects on the river surface and illegal operation of the river channel.



Through the River APP, display river patrol track, locate and feed back the problems found on the spot timely.



**Panoramic tour river:** Comprehensive and intuitive grasp of all river and lake data, small and micro water data, discharge data, monitoring data etc. ,within the Tianxin area, intuitive access to a river 's status, for example river patrol, or other problems and so on.

