Safety Insights –
How to make Operations Manager's Life Easier

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Agenda

- Notes
- Purpose of the Proof of Concept
- General Overview of Safety Work Centers
- Safety Definitions
- Operations Manager *persona*
- Supported Integrations
- Main Work Centers Screens

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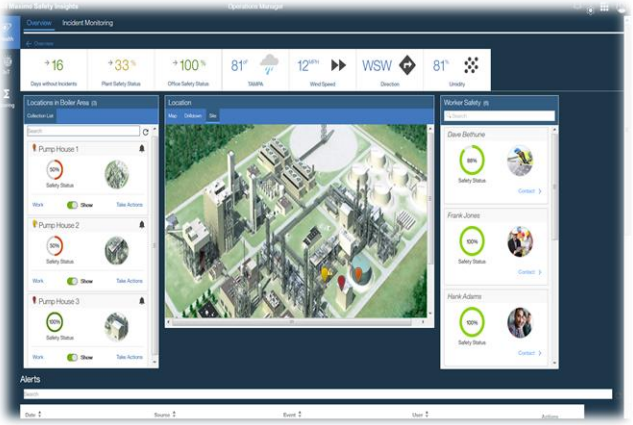
Purpose of Operational Safety Work Centers

Development of a “Proof of Concept”

- O&G and HSE next releases roadmap
- Explore the design of O&G and HSE *personas* through Lightning work centers (ex. Operations Manager, HSE Manager)
- Explore use cases connecting Maximo and IoT
- Start point to promote debate and get insights from customers

Maximo Operational Safety Work Centers

- New work center on the top of Maximo Lightning
- *Operations Manager as persona*
- Promote the *Perception of Safety*
- Management of risks associated with process and occupational health and safety

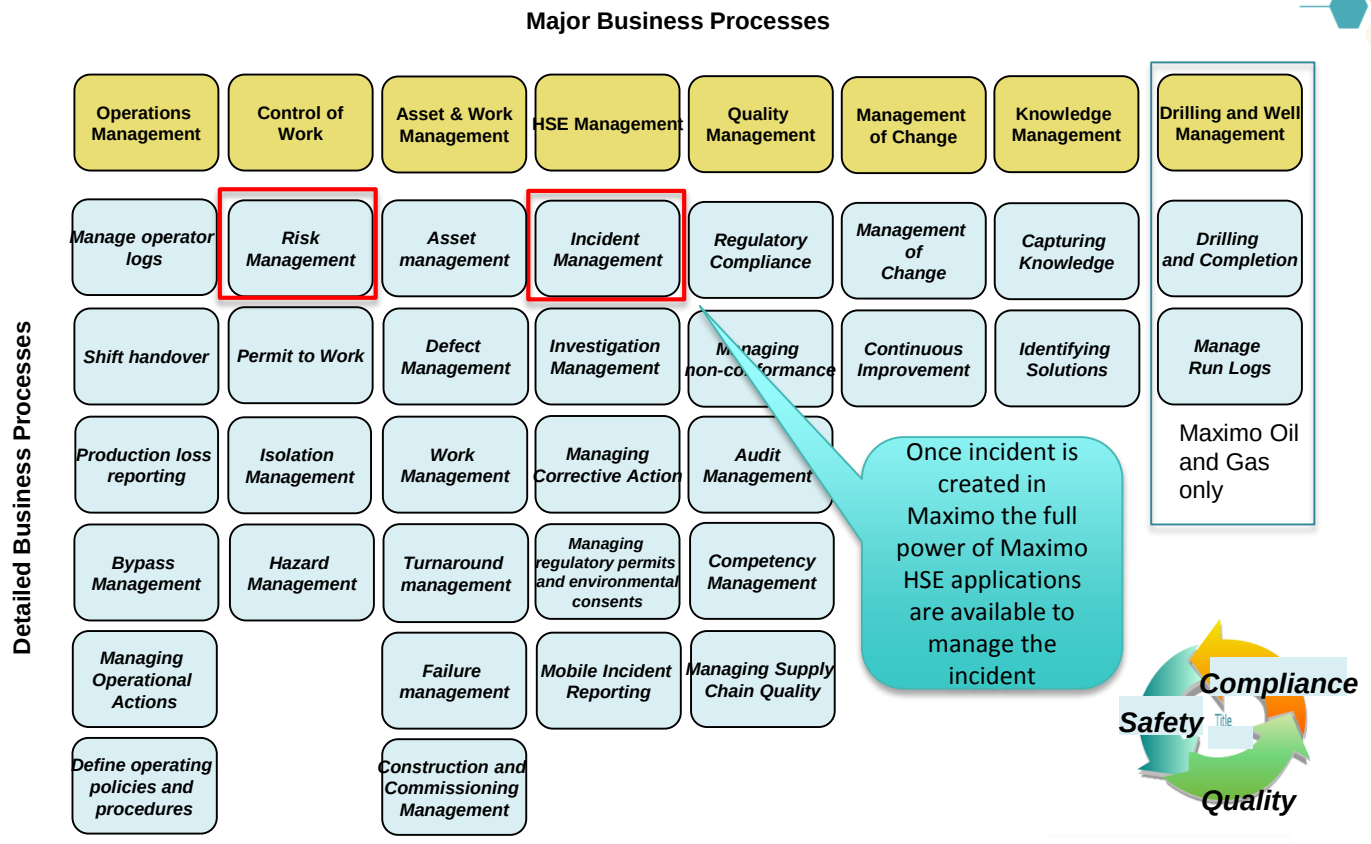


Maximo Operational Safety Work Centers

Insight on risks:

- Information held in Maximo safety related applications
- Directly from devices by supporting Internet of Things connectivity with the IBM Watson Cloud Platform

Maximo O&G/HSE Manager business processes



Definitions

1. Process safety covers the management of major accident hazard risks such as loss or containment or chemical release to which organizations involved in managing major hazards may be exposed. Also sometimes referred to as asset integrity.

2. Occupational Health and Safety covers the management of personal safety in the workplace. There are two main components to this

- Occupational injury resulting from a work related activity
- Occupational illness caused by factors associated with employment

Teresa Martins, Operations Manager

Tools and Abilities

Access to sensor data monitoring environmental condition of the plant and the worker's health status.
Access to Maximo O&G to manage incidents and start investigation processes.

"I would like to have the overall safety control of the plant I manage."

Motivation

Increase the awareness of operational risk.

Frustrations

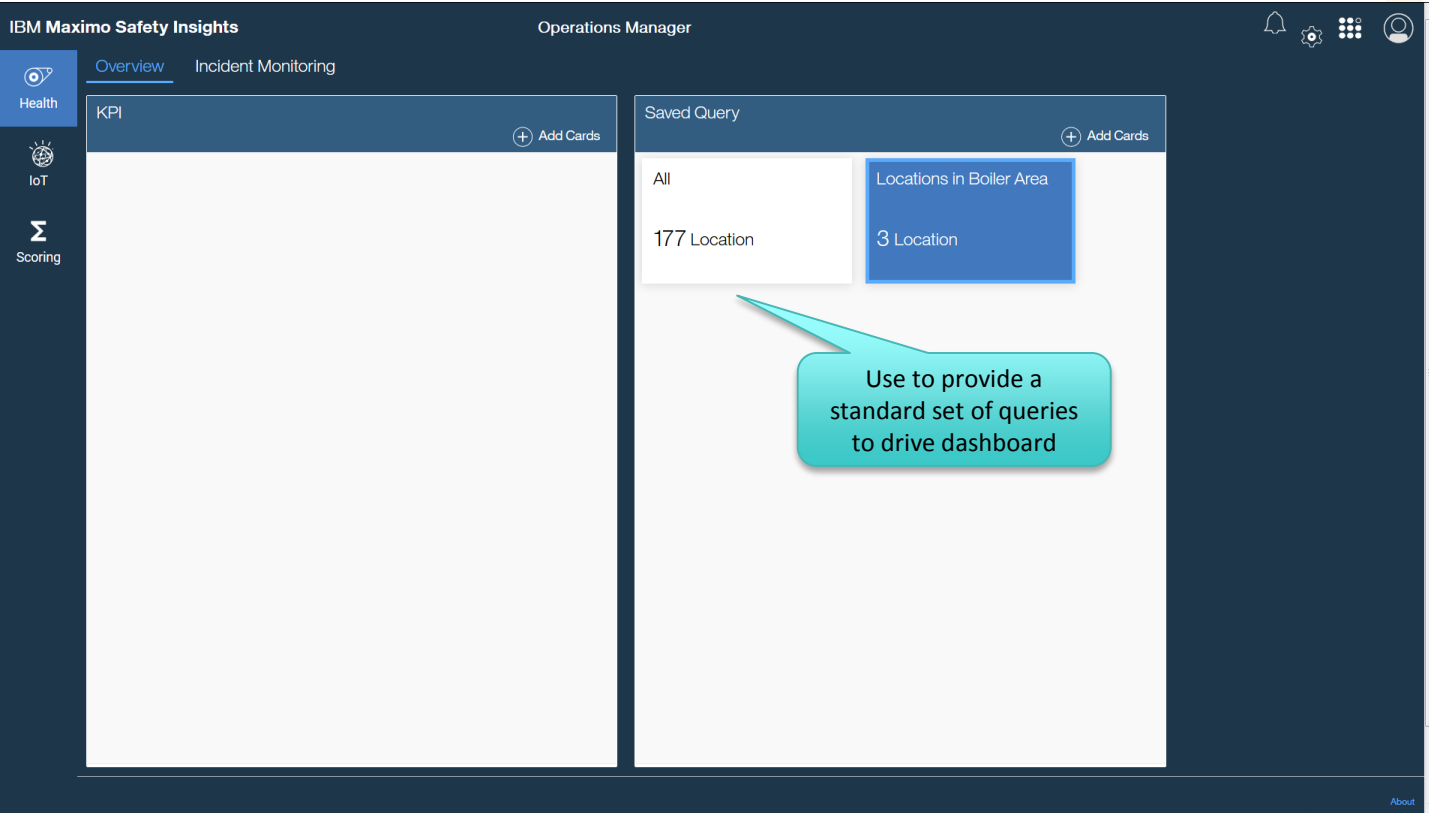
Cannot quickly correlate the great amount of data from different sources and systems.

Tasks

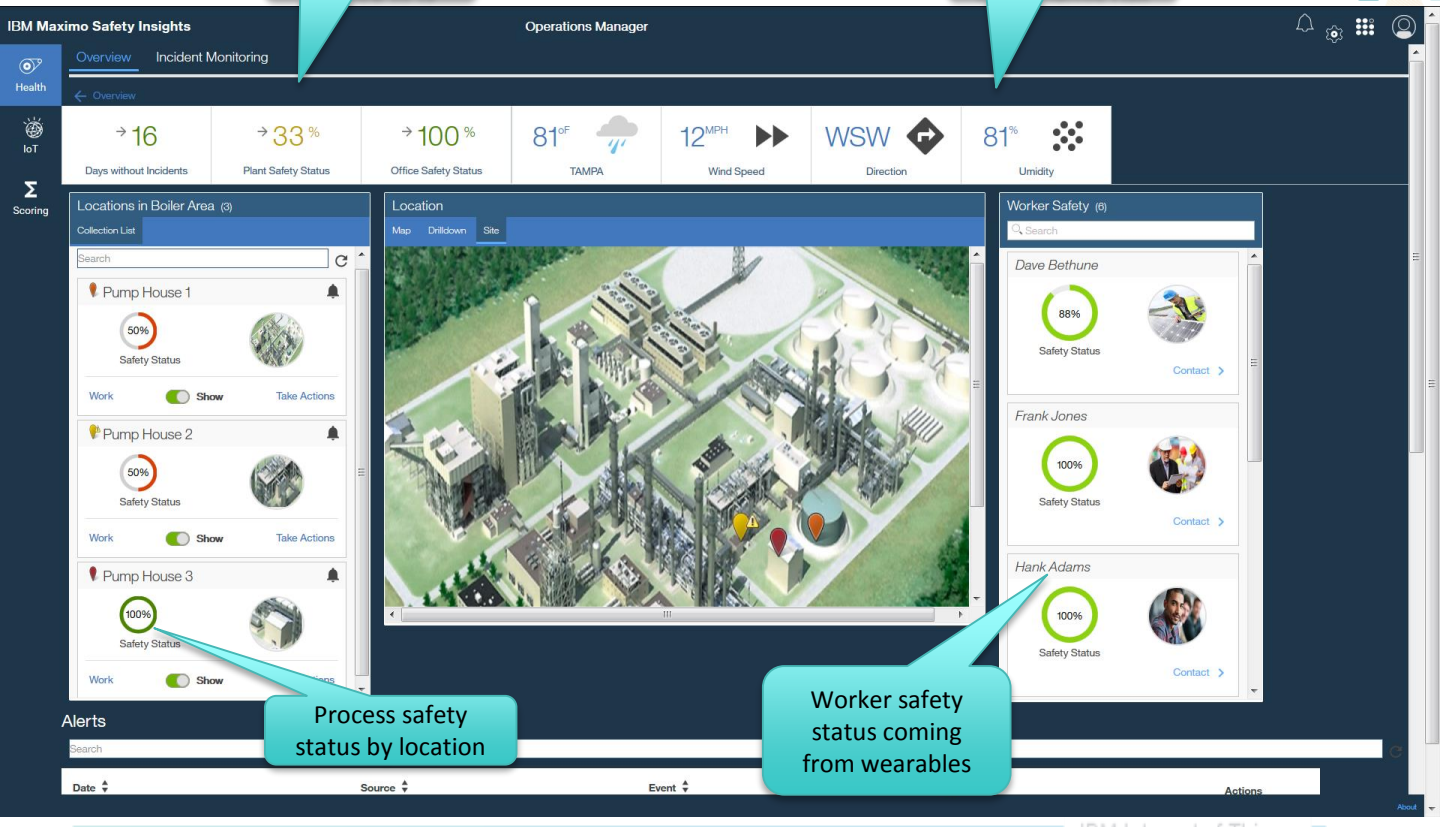
- Ensure that all workers under her management attends the conditions of work established by standards and procedures
- Ensure all the Assets and Locations under her supervision are safe.

Thinking Process

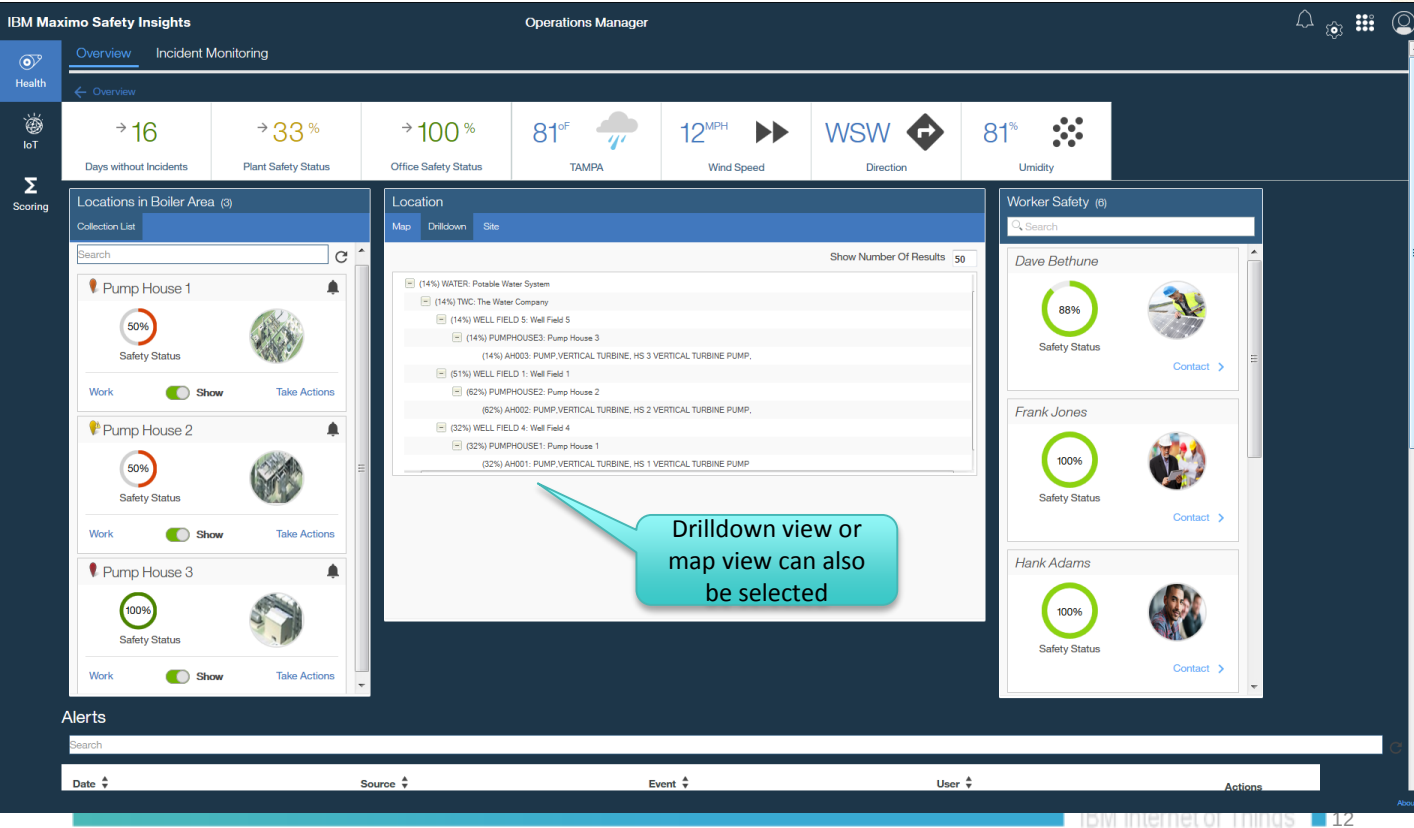
Initial screen after login



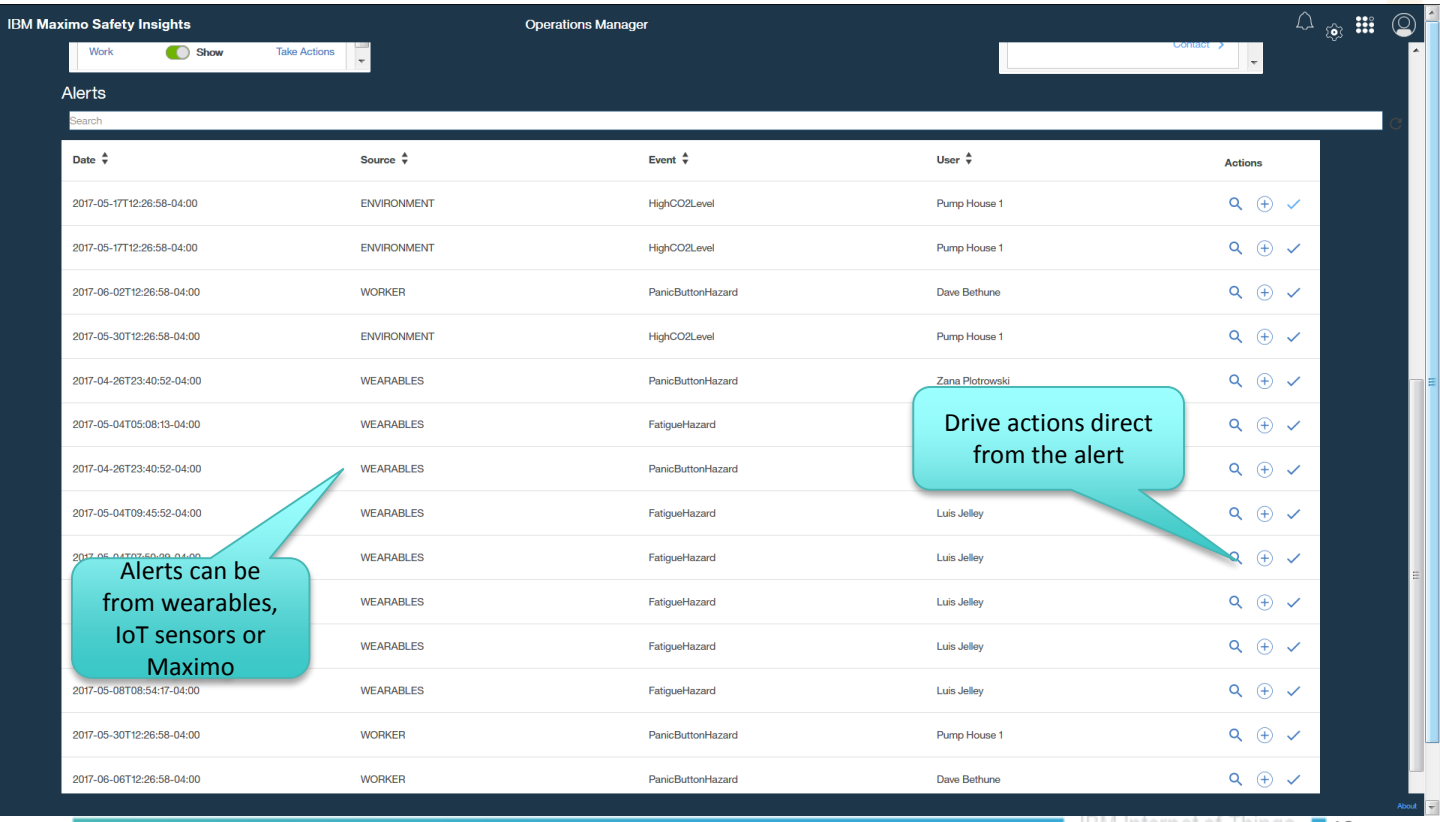
Overview screen



Overview screen with drilldown option selected



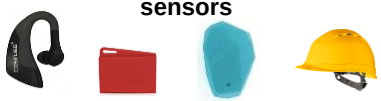
Alert List and Actions



Operational Safety Work Centers – Alerts

Support Integration with Safety External Systems

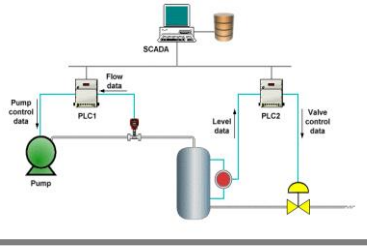
Safety wearables & nearby sensors



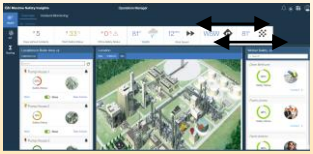
Wearable System

Environmental Sensors

Environment Monitoring System



Direct connection with Sensors ....



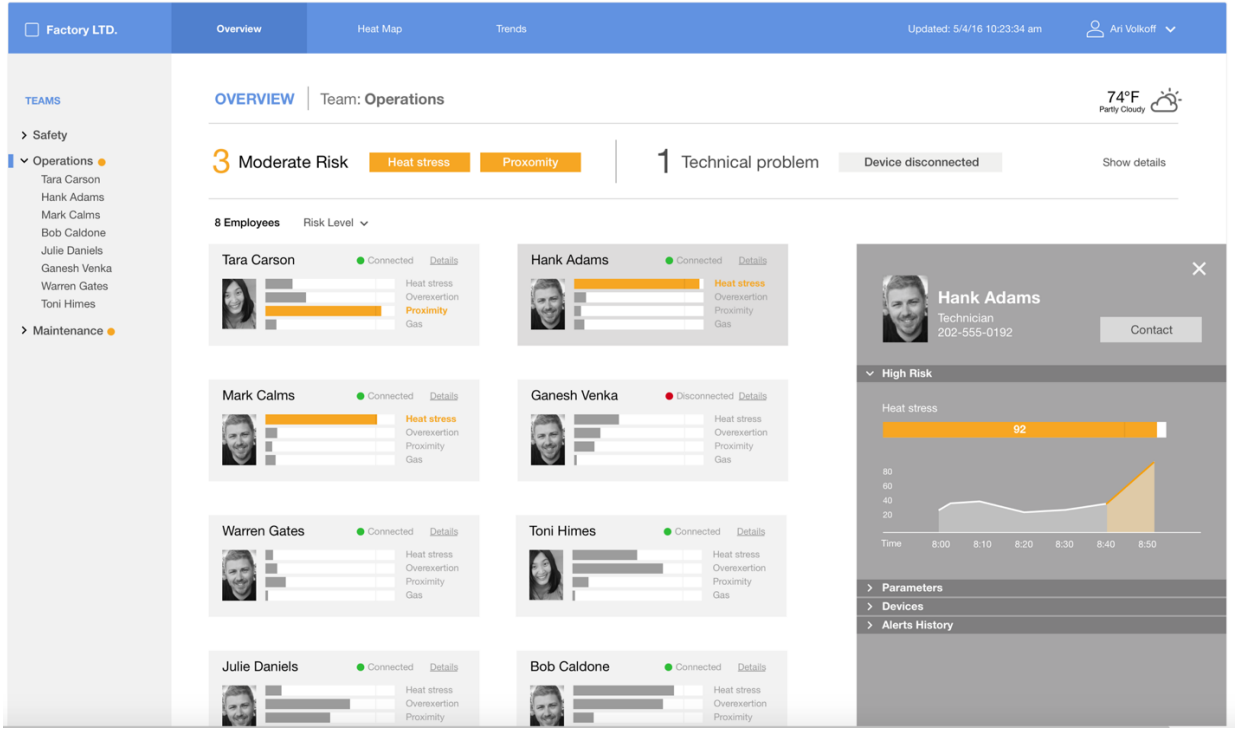
Maximo Safety Insights

IBM Watson IoT 4i Worker Safety

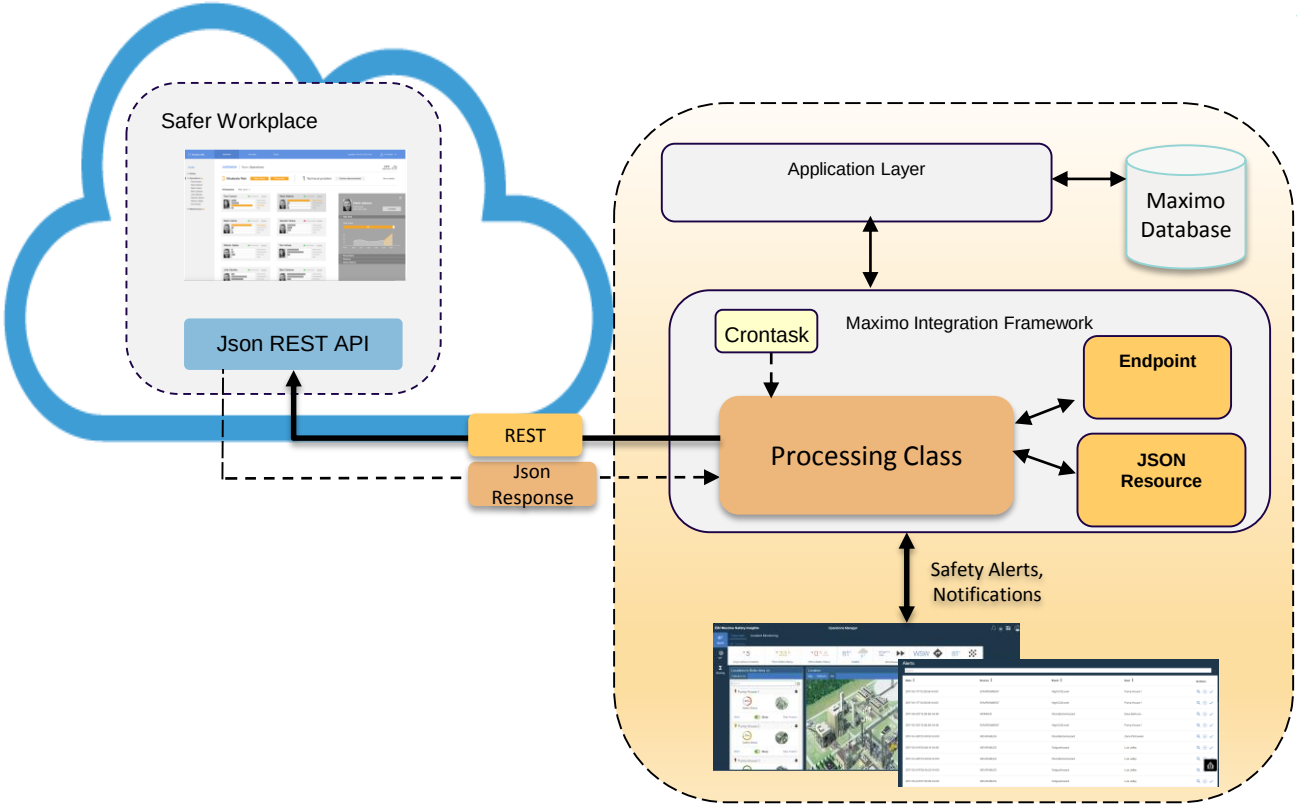
- Cloud SaaS Offering*
- Wearables status dashboard
- Threshold configuration to send alerts
- Potential integration with Maximo HSE Manager

* Implemented by services.

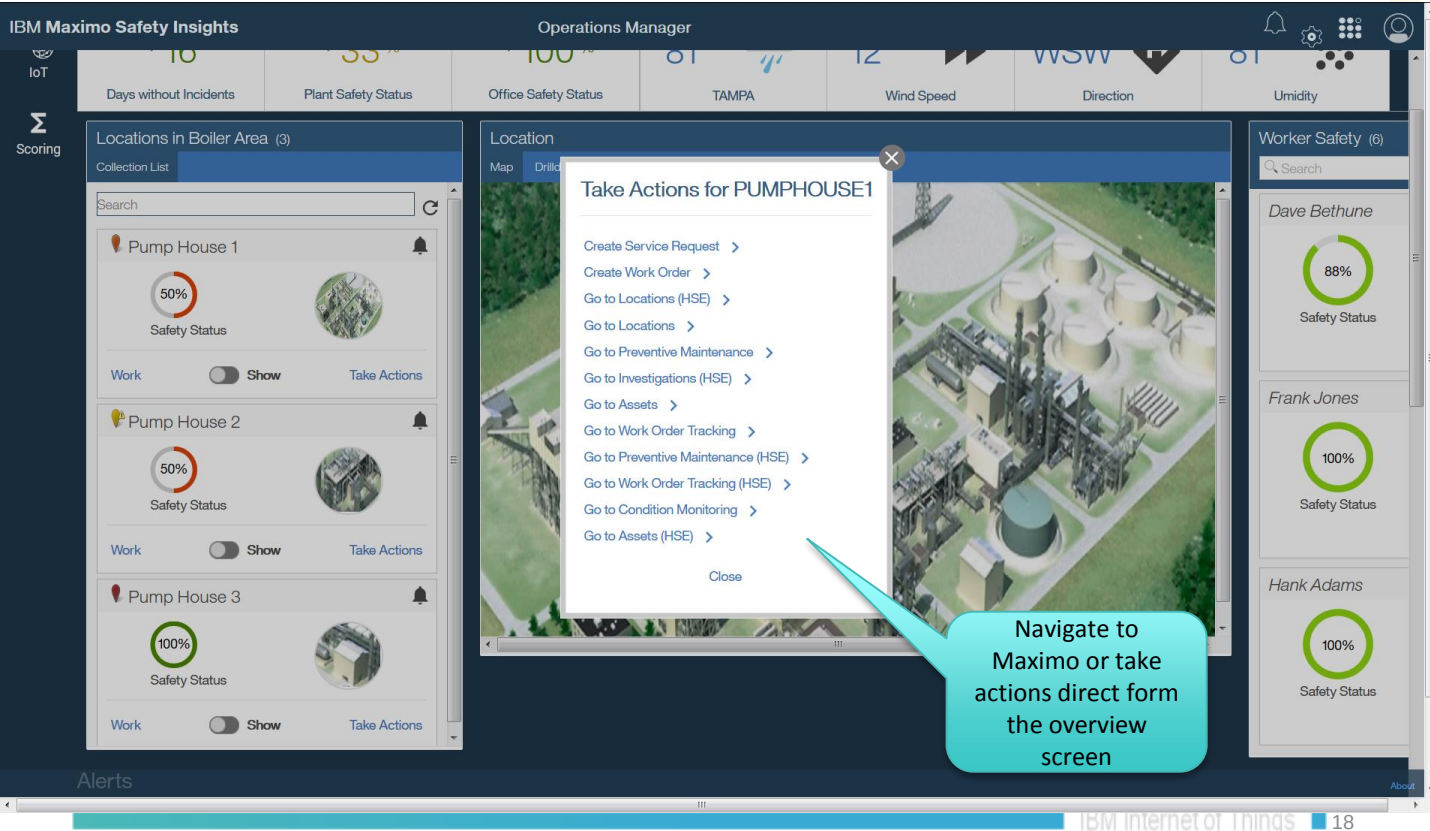
IBM Watson IoT 4i Worker Safety



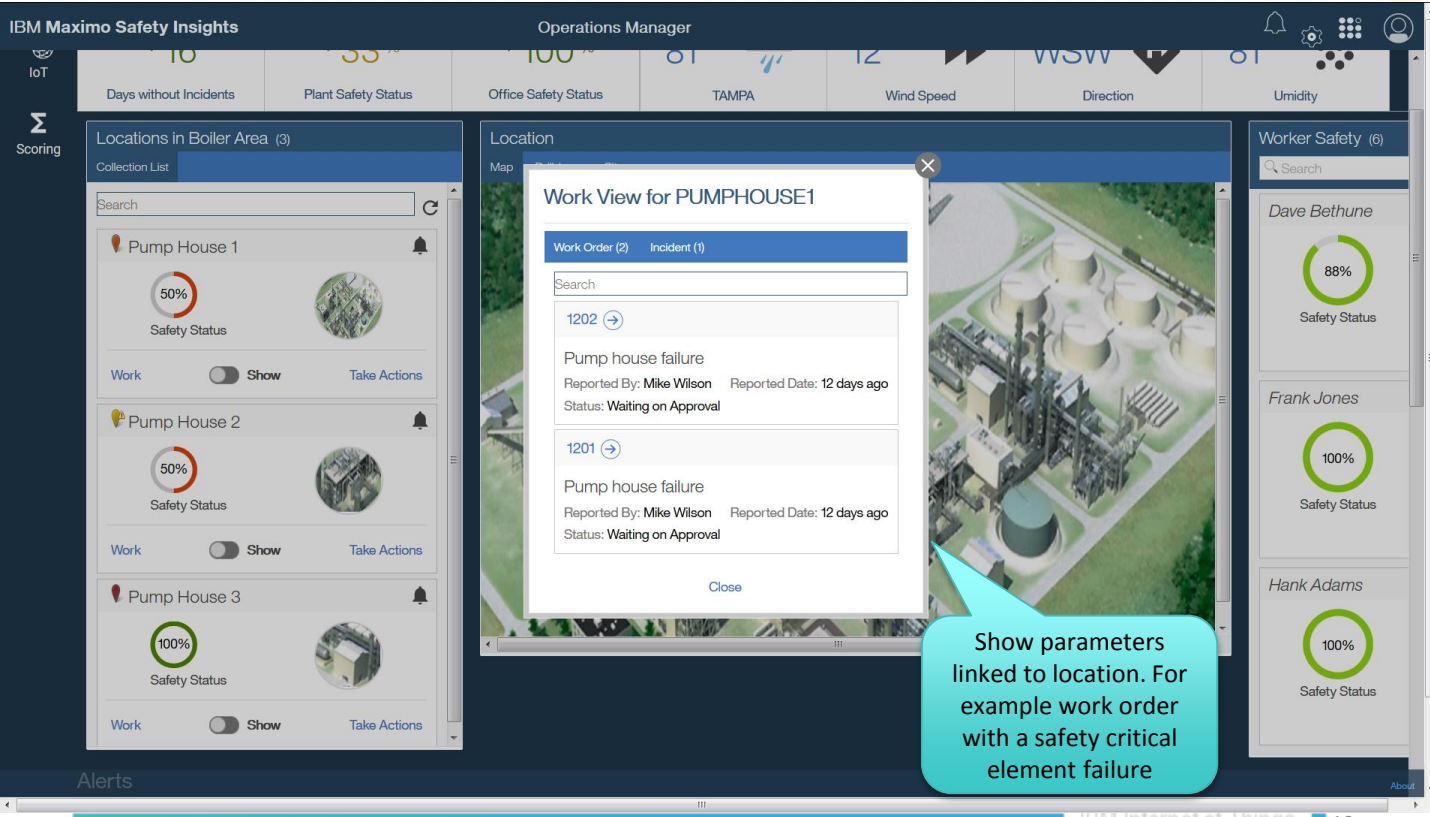
Maximo – Safer Workplace Integration Architecture



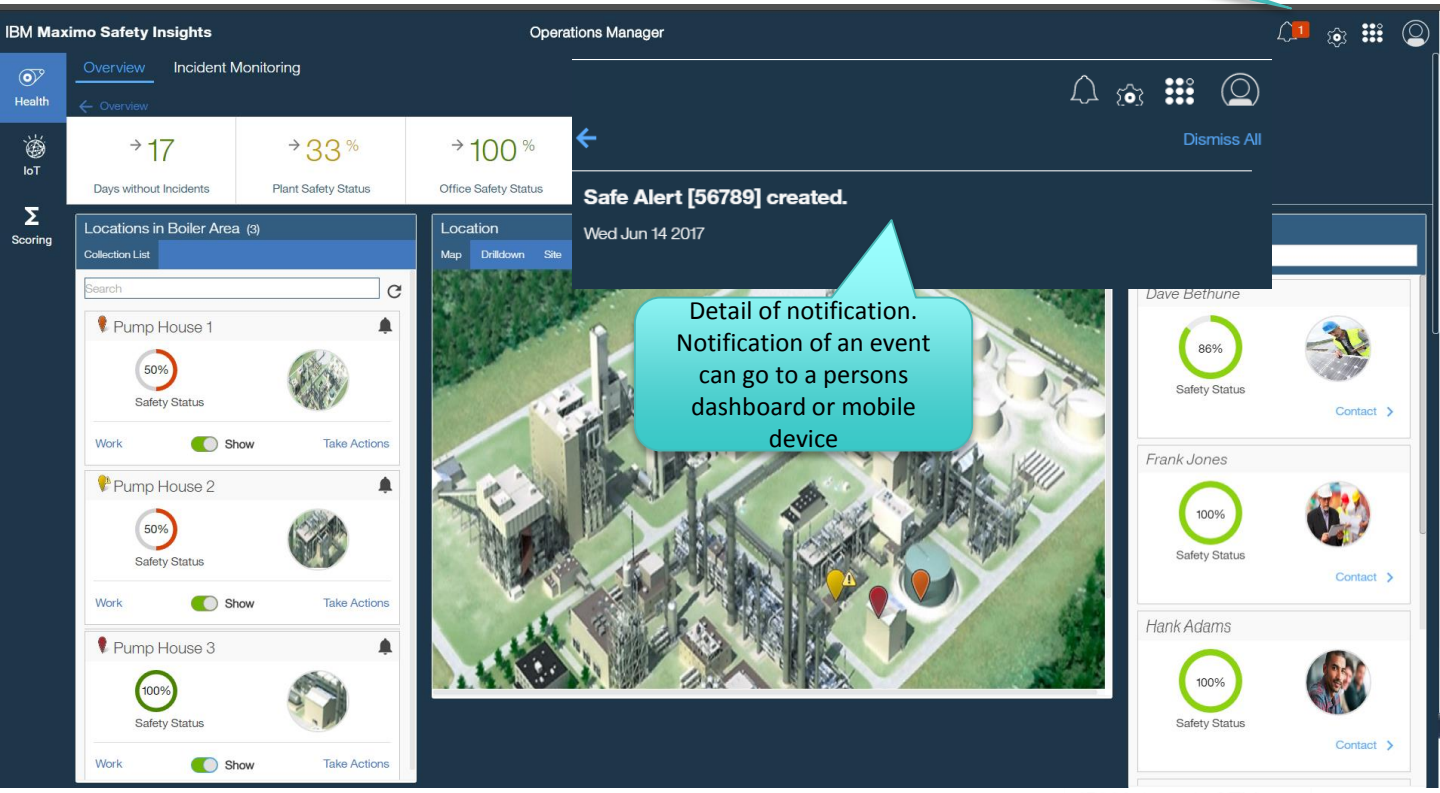
Overview screen with action options shown



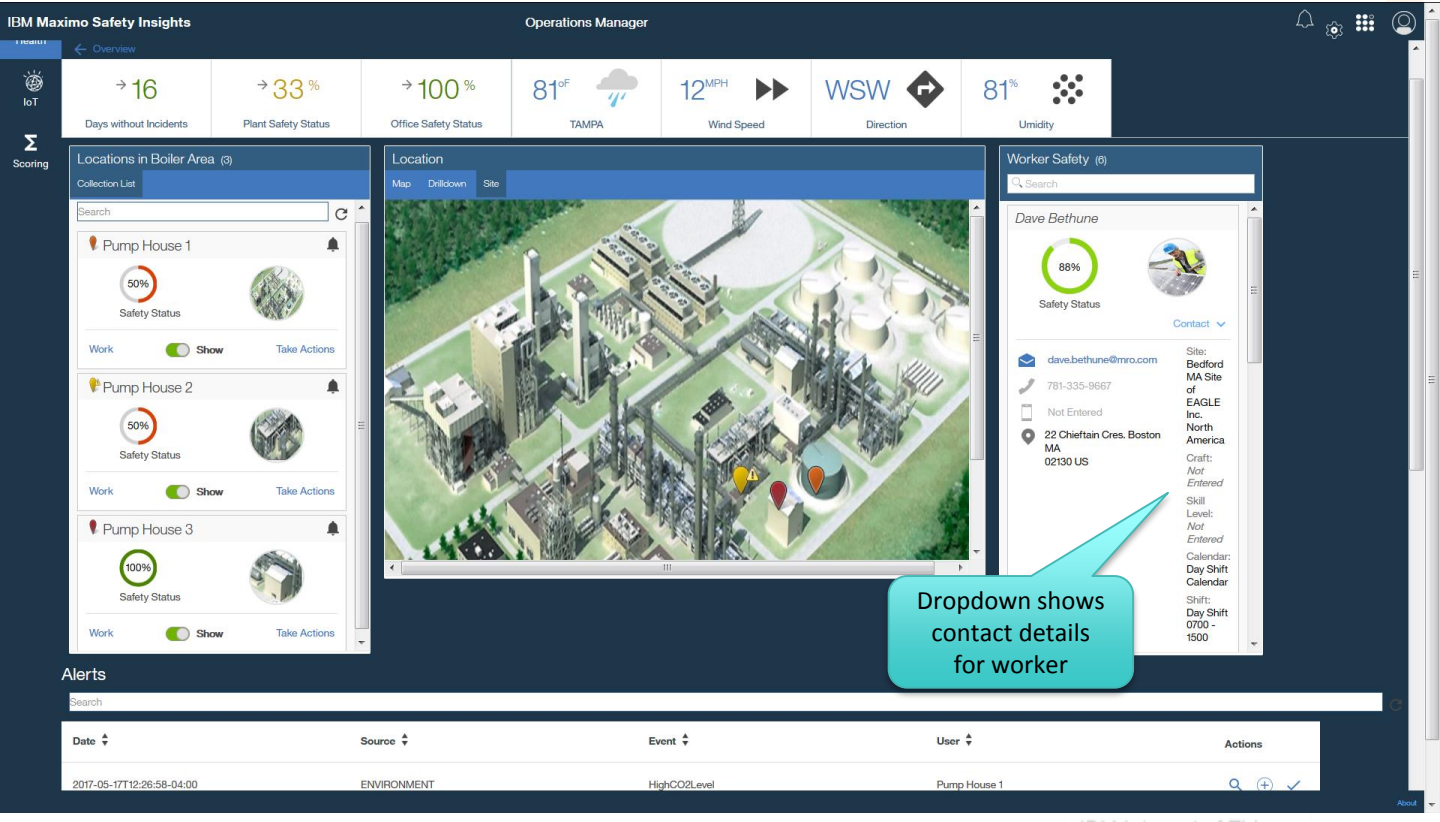
Overview screen with Work View shown for a Location



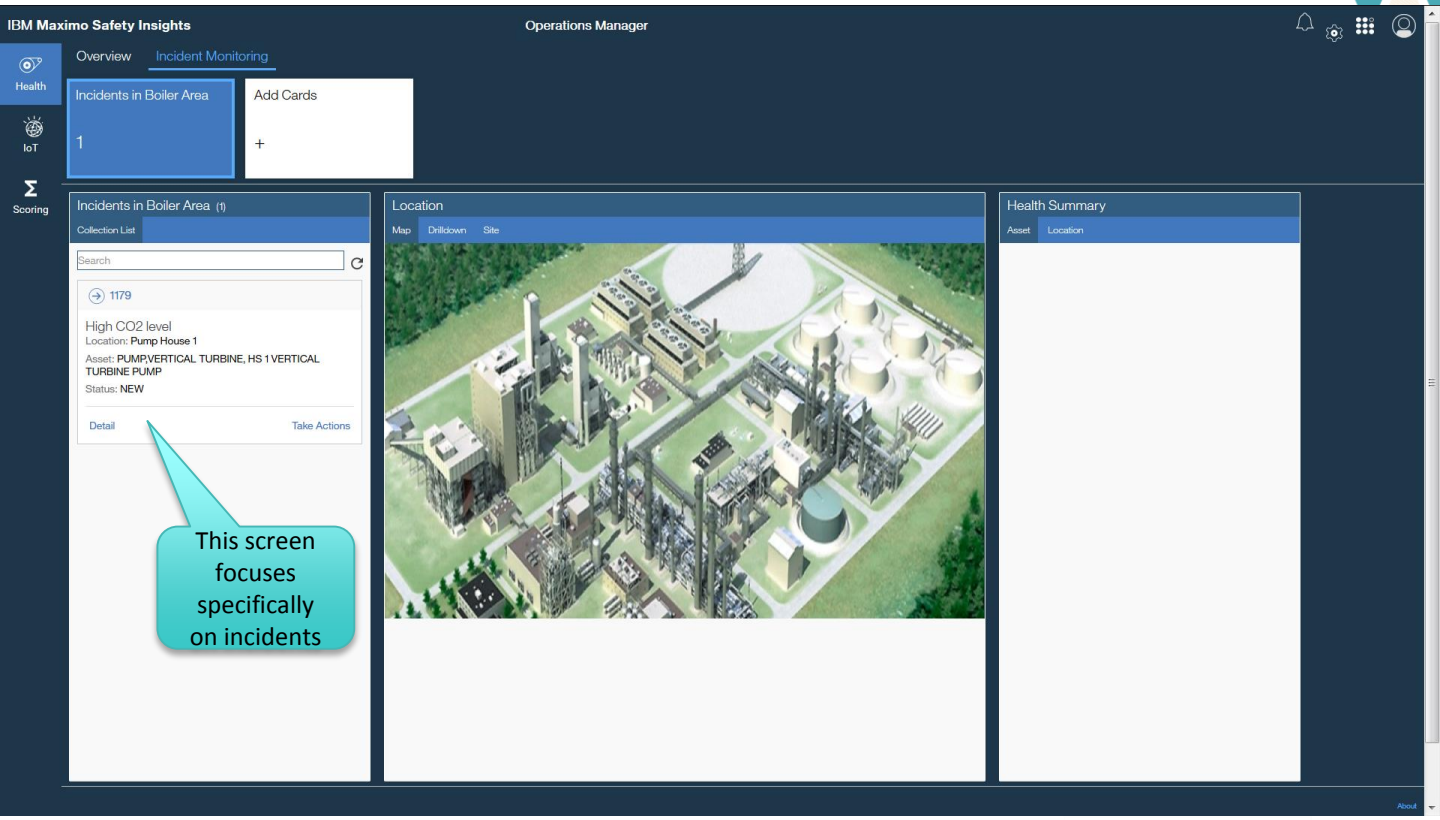
Overview screen showing a notification



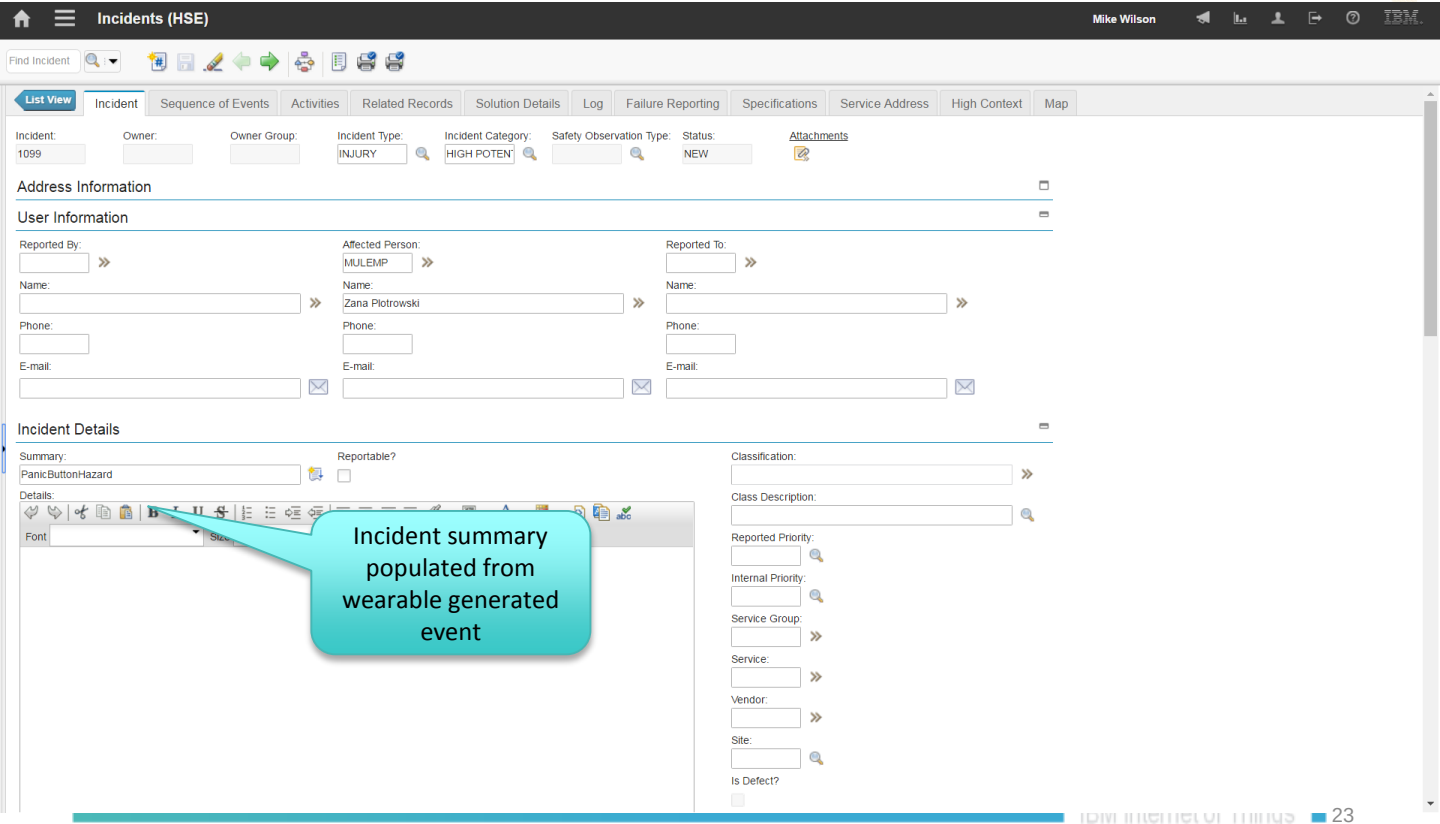
Overview screen showing worker contact details



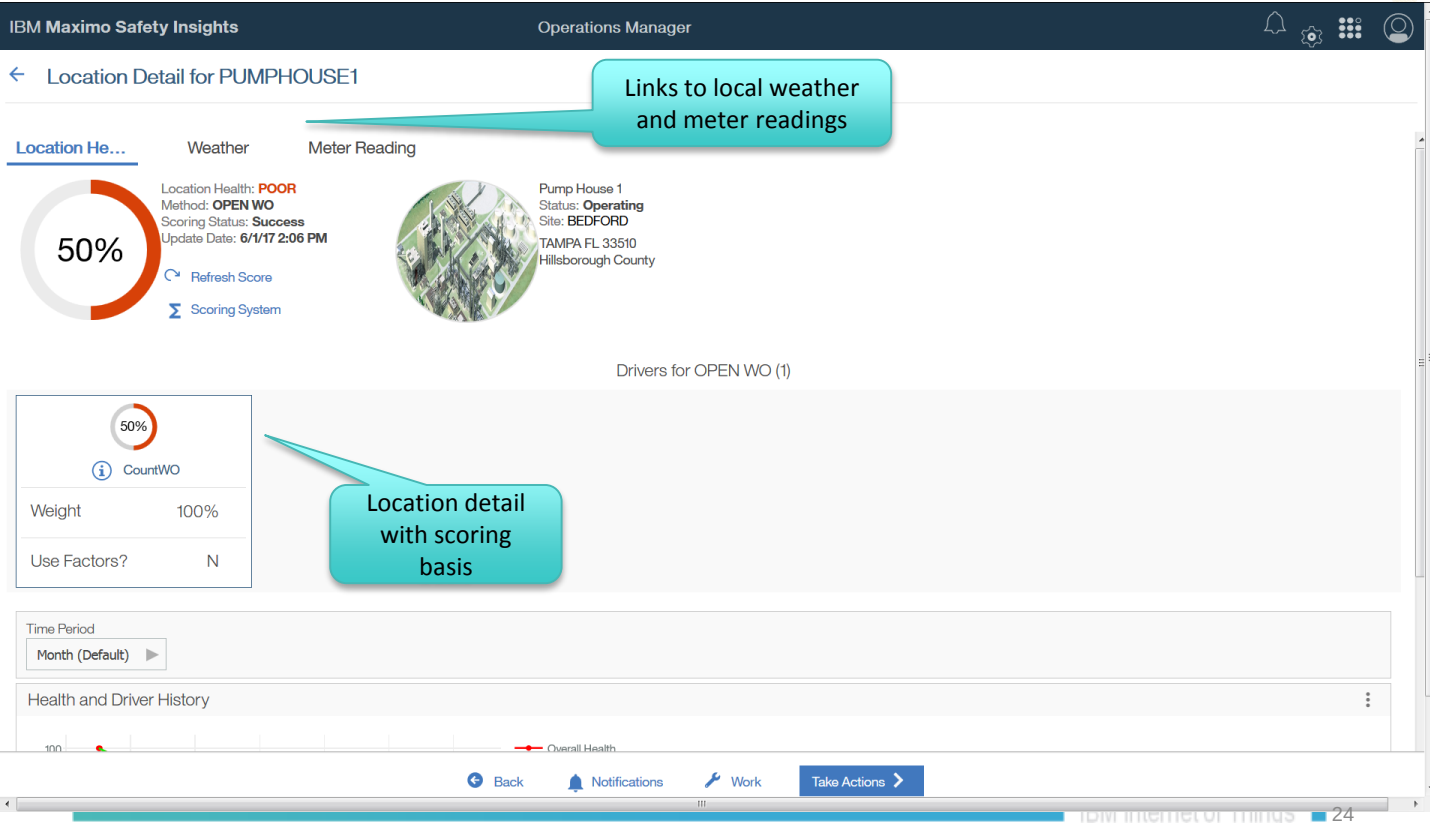
Incident Monitoring screen



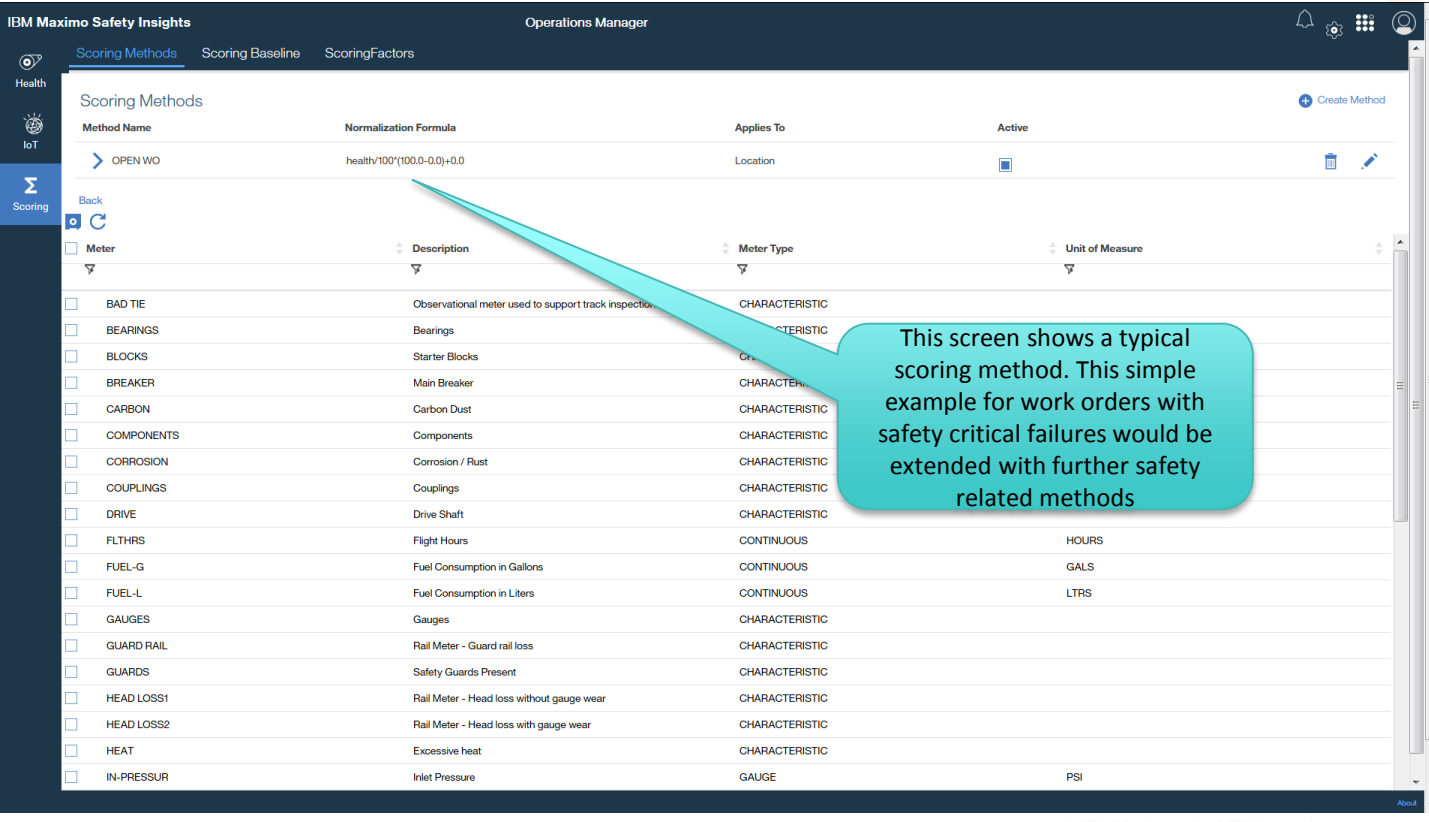
Automatic creation of an incident in Maximo from Worker Safety



Location Detail

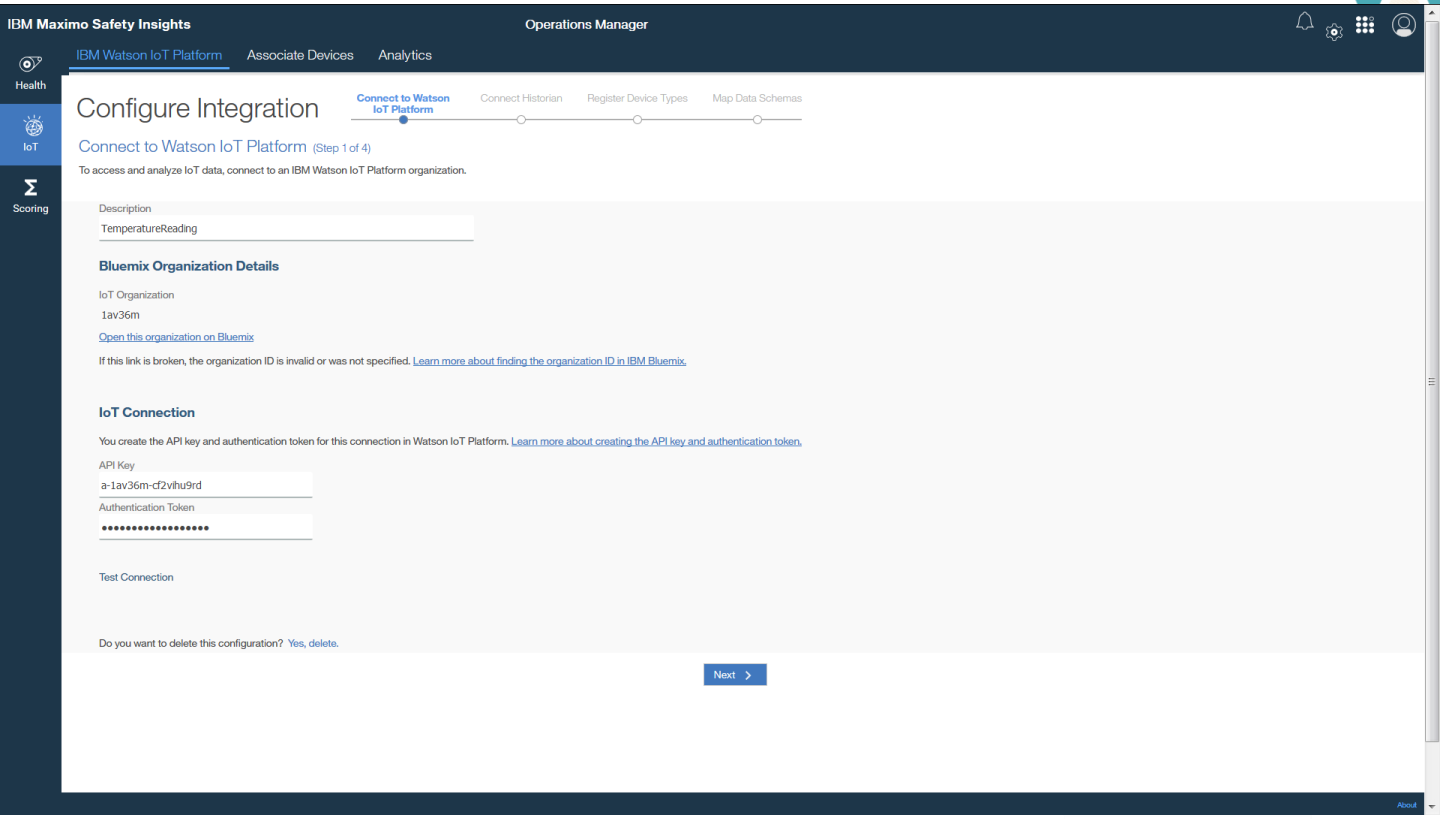


Scoring Methods

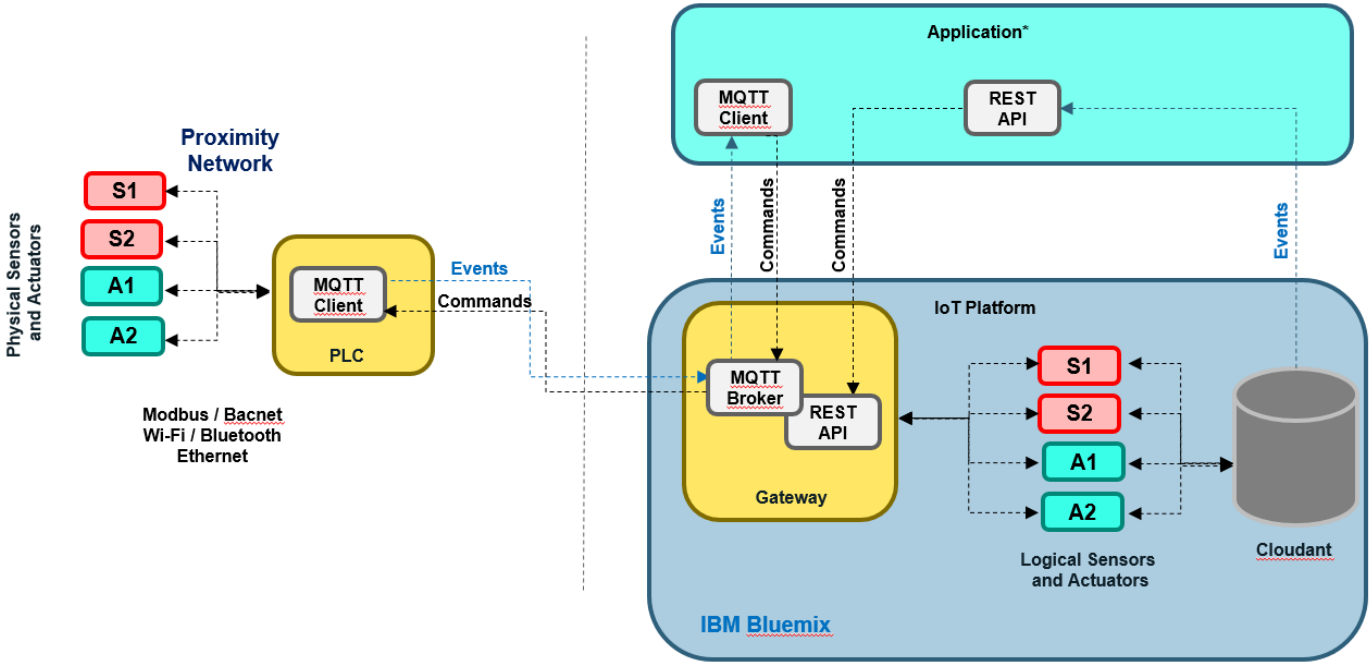


This screen shows a typical scoring method. This simple example for work orders with safety critical failures would be extended with further safety related methods

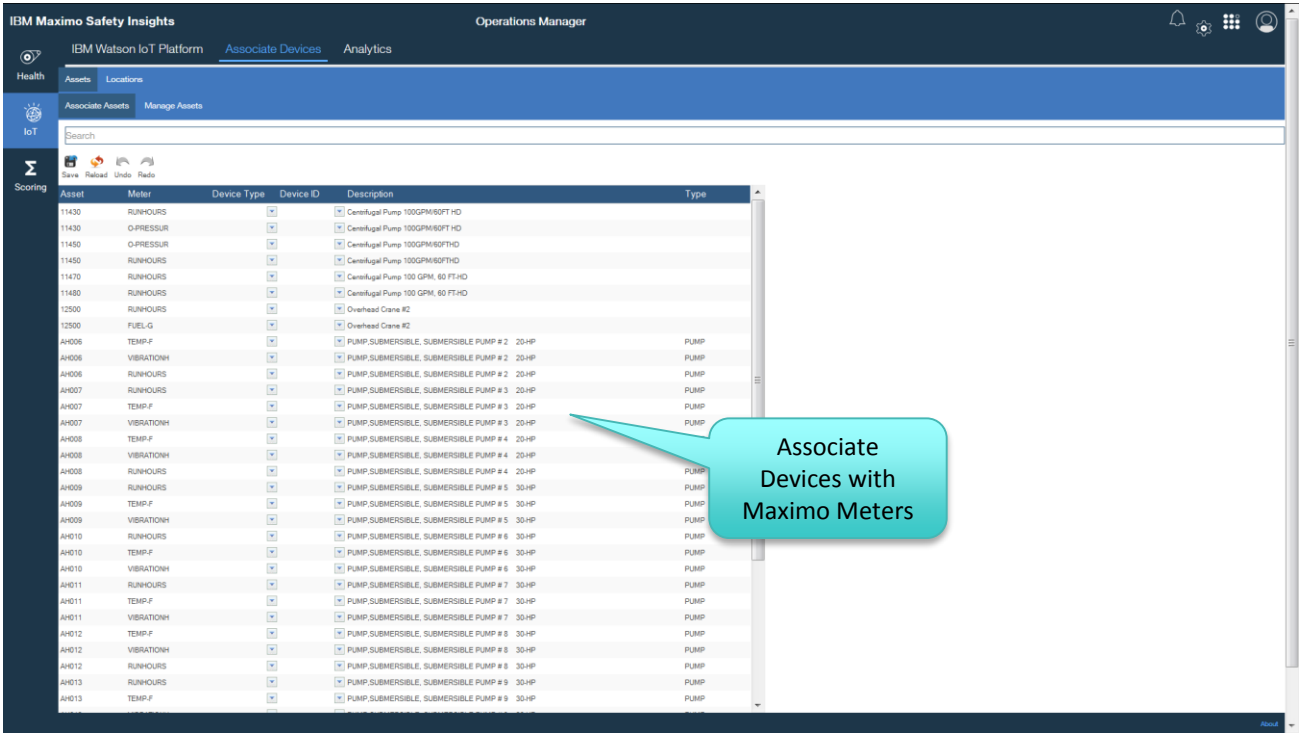
Configure Integration screen for IoT connectivity



IoT Platform Integration – Getting meter readings

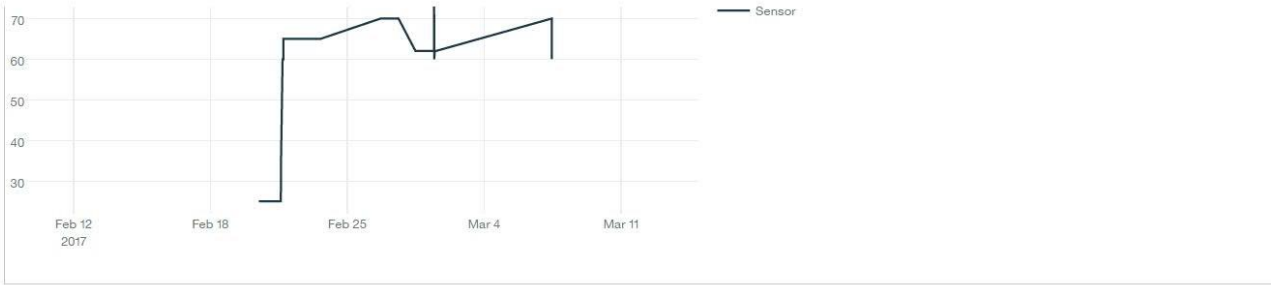


Associate Devices screen



Detail view showing events associated with a safety critical element. In this example an isolation valve

Location Detail for PUMPHOUSE1



Valve status (Characteristic meter)

Date	Type	Description
2017-02-28 12:26:39	PASSING	Passing at closed position
2017-02-28 12:36:05	CALIBRATION_OK	Passing at closed position

Next Steps

- Development of work centers next release
- Extension to other personas
- Accelerate for integration between HSE Manager and Safer Workplace

Thank you!