



The Dangers of Electronic Islands of Data and Vendor Reliance

Problems of Electronic Islands of Data

Operations management issues can arise when vendors offer singular solutions and homegrown applications. These can be described as electronic islands of data, examples of which are highlighted below.

- **Disconnected applications**
Software is siloed and the information is not easily shared between teams.
- **Singular applications**
Vendors offer isolated applications that paper over the cracks.
- **Enterprise inconsistencies**
Operations and safety personnel use different software, missing out on crucial overlapping data.
- **Zero mobility**
No mobile applications, which means that field personnel don't have access to key information.
- **Detached applications**
Important real-time and process data from Data Historians, the CMMS, the DCS, the PLC, EAM and SCADA systems is missing.
- **Vendor reliance**
Creating mobile extensions of applications requires advanced coding skills and/or vendor engagement.
- **Costly configuration**
Vendors make software that is difficult to configure – wasting time, adding financial costs and encouraging unnecessary change requests.
- **Strenuous scalability**
Scaling to other departments and sites is laborious.

Industrial Accidents Where Electronic Islands of Data Were a Contributory Factor

Shocking industrial disasters have highlighted the risks that appear during inadequate human operations management procedures. For example, investigations have found that electronic islands of data were a contributory factor in the following devastating industrial accidents.

DuPont LaPorte Toxic Chemical Leak (2014)

No situational awareness

A U.S. Chemical Safety and Hazard Identification Board investigation found a series of shift communication mistakes eventually led to the release of nearly 24,000 pounds of methyl mercaptan, a toxic chemical.

KiwiRail Train Derailment (2013)

Poor interdepartmental communications

An accident probe by the Transport Accident Investigation Commission in New Zealand found that ten weeks before the derailment, maintenance staff had forgotten to fit split pins to bolts that held the part in place. The employees were not given instructions and did not record their progress, so, when an overnight shift change took place, the task of fitting the brake component was omitted.

BP Deepwater Horizon Oil Spill (2010)

Poor contractor communications

According to BOEMRE, there was no evidence that BP or Halliburton ever shared the cement stability results or the OptiCem reports – showing gas flow potential – with Transocean personnel on the Deepwater Horizon or in the Houston office.

Buncefield Fire (2005)

Disconnected software and too many displays

According to a Competent Authority Strategic Management Group (CASMG) report, there is evidence to suggest that on the night of the incident the supervisors were confused as to which pipeline was filling which tank. This confusion arose because of deficiencies in the shift handover procedures and overlapping screens on the ATG system.

How j5 Operations Management Solutions Can Solve the Problems

j5 Operations Management Software replaces homegrown applications and one-off solutions. It provides a comprehensive suite of operations management and process safety applications on a single web browser-based platform, which provides the following benefits:

- One evolving framework for all applications
- Consistency across operations and process safety teams
- Optimized for desktop and mobile
- Intuitive, spreadsheet-like configuration
- Real-time connection with Data Historians, the CMMS and engineering data
- Time saved on unnecessary change requests
- Enterprise scalability

| Visit hexagonppm.com for more information on j5 Operations Management Solutions

About Hexagon

Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.9bn EUR. Learn more at hexagon.com and follow us @HexagonAB.