

# Hosted Safety Management System

**Information Sheet** 





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# **COMPANY INFORMATION**

#### MISSION STATEMENT:

To provide the most effective, intuitive and easy to implement SMS and FDM solutions for the aviation industry.

#### **COMPANY PROFILE:**

FlightDataPeople offer a complete safety management (SMS) and flight data management (FDM) solution for airlines comprising hosted SMS and FDM systems, consultancy and training services in all aspect of aviation safety management.

FlightDataPeople first started as a Flight Data Monitoring (FDM) Service to British Airways and other airlines using BAFDA (British Airways Flight Data Analysis). The team has extensive safety management, operational, engineering, maintenance and IT experience within airlines. In 2013 they expanded their product and services to include SMS software and are the first and currently only software provider to have a totally integrated FDM and SMS solution.



# **SUMMARY**

Our Hosted SMS360 solution has been designed and developed by aviation safety and software specialists with a wealth of airline experience in flight data, safety, quality, operational, engineering and maintenance departments.

SMS360 is a web-based, hosted tool to support an integrated Safety Management System. It has been purposely designed to be intuitive and easy to implement allowing it to be used throughout your organisation with minimal training whilst still providing a highly effective and integrated solution. The tools cover both Mandatory and Voluntary Occurrences as well as Audits, Risk Assessments and analysis including dashboards.

At FlightDataPeople we understand that a well-designed and easy-to-use software tool will be more effective when deployed throughout your organisation. Our intuitive and simple workflows will help promote a more holistic, integrated and proactive approach to safety and risk management in your organisation. SMS360 will allow you to have the full 360-degree oversight of safety. Findings and actions from Safety Occurrences are managed and analysed in the tool. Safety investigations can be raised and actions with agreed timescales assigned ensuring that those responsible are clearly identified for completing their corrective or preventative actions.

Powerful analysis and reporting tools allow the identification of high risk areas and events and are also used to show that completed actions have been effective. This enable organisations to demonstrate that risks are being managed and that they have oversight of their safety system. Comprehensive analysis can be performed simply and can be set up to measure and display Safety Performance Indicators (SPIs).

Benefits of SMS360 to your organisation:

- ✓ **Electronic** reporting of incidents via PC, Laptops and Mobile Devices.
- ✓ Hosted solution: FlightDataPeople host the software on their servers so
  NO internal IT Hardware and People costs associated with the
  implementation and operation.
- ✓ **Easy to implement and use:** Minimal training for the main users and the set up and installation is done by FlightDataPeople who host the system on their own servers.



- ✓ **Smart forms:** The forms in SMS are able to be set up to allow relevant sections to appear if the relevant check box is selected; e.g. if Birdstrike checkbox is selected then Birdstrike section and associated fields appear on ASR. Confidential check boxes can also made available on the occurrence forms if required. Sketch areas and attachments can also be included on these forms.
- ✓ **Listings:** SMS360 is able to list separately the Incidents, Investigations, Findings, Audits, Non-Conformances, Risk Assessments and Actions in an easy-to-use way.
- ✓ Risk analysis: Every occurrence can be risk assessed using a risk matrix; the risk matrix is configurable in SMS360 and the most popularly used are the ICAO and EASA risk matrices. Every occurrence is also risk weighted which allows proper risk analysis to be made and allows easy identification of the high-risk areas.
- ✓ Ops data import: Data from internal systems can be imported into the incident.
- ✓ **Security**: The security can be controlled by incident type, department, role and user. Also, fields can be made confidential which provides another level of security. A confidential check box can also be added to the forms and selected by the reporter.
- ✓ **Configurable exports:** Data from SMS360 can be exported to various file formats using a configurable exporter within the system. This can also be used for producing list type reports.
- ✓ **Trend alert and workflow email notifications:** Email alerts can be set up for trends; e.g. 3 Birdstrikes in the same location within a month etc. Overdue actions, MORs not sent to CAA etc. can be set up for workflow type email alerting.
- ✓ Trend drill down charts: The analysis and reporting capability is an excellent feature in SMS360 and is enhanced by the built-in drilldown capability which is extremely useful for identifying the causes of any trends. SMS360 Charts and associated data can be saved as an MS Excel file if required.
- ✓ **Filtering:** There are very useful quick search filters and more comprehensive filtering facilities in SMS360 which allows a user to group sets of common incidents which can easily be viewed, analysed, printed or exported as required.



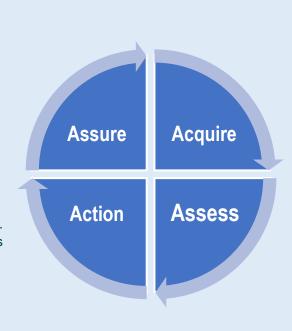
- ✓ **MOR Reporting:** SMS360 uses built-in MOR templates including e5x file format (EASA) for reporting MORs to the aviation authority.
- ✓ **Investigation and Audit Reports**; reports can be produced efficiently using built-in word templates based on your requirements. Data entered into SMS360 regarding the occurrence and investigation or Audit and associated Non-Conformances are imported into the template and a draft report can be subsequently edited once produced.
- ✓ **Actions via emails** (two-way interface): Actions can be assigned to a department, an SMS360 user or to an email address. The latter is very useful for actions to external organisations (e.g. Ground Handler, ATM etc.) or staff who do not have access rights to SMS360. An actionee who receives an Action email from SMS360 is provided with details of the incident and can simply select respond in the email and their response will automatically be entered into SMS360 and an email sent to the actioner to notify that a response has been received.
- ✓ Action monitoring: SMS360 provide an easy to follow action process and allows these actions to be monitored against target date and also that these were effective by using the built- trend analysis capability.
- ✓ **Non-Conformities and Proposed Actions**: Non-Conformities can be sent via email by the auditor from within SMS360 and the Auditee can submit their proposed Action Plan via an SMS360 link within the email which avoids them having to login to SMS360. The auditor is also able to accept or reject the proposed action plans from an email link.
- ✓ Audit Checklists: Template checklists can be created, managed and used in SM360.
- ✓ **Interactive Dashboards:** SMS360 has a dashboard area which can be set up to display safety performance indicators. These dashboards have drill down capability can be made interactive as required.
- ✓ Anonymous Reporting: Anonymous and confidential reporting are both supported in SMS360.
- ✓ Reporting App: SMS360 My Forms App for IOS, Android and Windows 10 available for offline submission of incidents.
- ✓ **FDM Interface:** Our preferred FDM interface for SMS360 is with our own hosted FDM solution known as FDM360. However, SMS360 can and does interface with other FDM systems.



# The four A's to effective safety management

Powerful built-in Trend analysis and reporting will allow complete 360 degree oversight to ensure that the agreed actions have been effective.

Actions can be assigned to the appropriate department. All investigation findings will have actions assigned with agreed timescales which are monitored to ensure these have been completed.



Safety occurrences are raised easily by all staff in the organisation using browser based forms for Air Safety, Cabin Safety, Maintenance Safety, Ground Safety and Injury reports.

These report forms are automatically routed to the safety staff who can validate, risk assess and categorise them appropriately. Investigations can be raised.

# SMS360 has the following functionality and features:

- ✓ Auto population of occurrence form fields from other systems
- ✓ Simplified workflow and intuitive user interface
- ✓ Organisation wide Flight, Maintenance, Cabin, Ground Safety Reporting.
- ✓ Safety Management
- ✓ Action monitoring
- ✓ Powerful built-in trend analysis with drilldown and reporting capability
- ✓ Export capability
- ✓ Audit Management
- ✓ Audit Scheduling
- ✓ Risk Analysis
- ✓ Risk Registers
- ✓ Hazard Assessment
- ✓ Workflow alert notification e.g. Overdue Actions
- ✓ Trend alert notification
- ✓ Interactive Dashboards



- ✓ Access from PC/Tablet/Smart Phone
- ✓ Secure multi-browser based access 24/7/52
- ✓ Automated backup/archive etc.
- ✓ Multiple report form types
- ✓ FDM Interface

Our implementation services and support include:

- ✓ On-site SMS360 training
- ✓ Website forums for support issues
- ✓ Initial setup and on-going admin, maintenance and upgrades
- ✓ Safety Management and Flight Data Monitoring training
- ✓ Flight Data Monitoring and Safety analyst role
- ✓ FDM and SMS Consultancy

# SMS360 DESCRIPTION



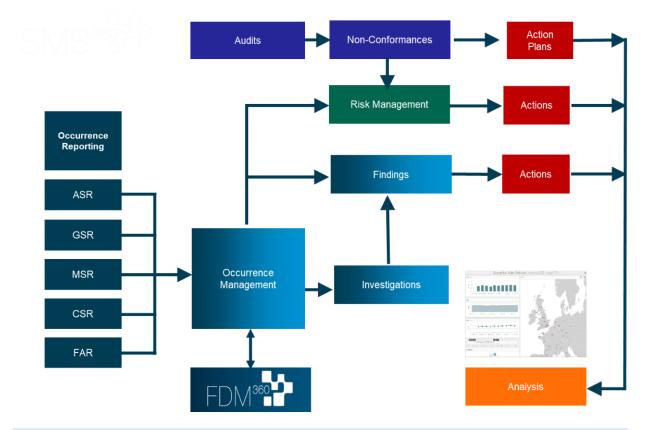
SMS360 is a web-based software solution to support your organisation's Safety Management System (SMS) and has been

designed using industry best practice and conforms with ICAO SMS Doc 9859 (3<sup>rd</sup> edition) and EASA SMS requirements. The tool is hosted by FlightDataPeople which means implementation time and costs are kept to a minimum. It also means the tool has a high availability and can be accessed via various web browser types from the workplace, home or anywhere with internet connection using PCs, Laptops and portable devices such as IPads. The data is securely stored and only staff approved to access the data will be granted the appropriate rights to do so using role based security access.

SMS360 is also capable of interfacing with FDM360 which is a widely used flight Data Monitoring (FDM) solution offered by FlightDataPeople. This interface allows events detected in FDM360 to be managed by SMS360. It also allows FDM events and reported occurrences to be matched and enables authorised investigators to view flight data associated with occurrences. FlightDataPeople are the only software supplier to offer a tool which manages both FDM and SMS data.



# SMS360 includes the following functional areas:



# OCCURRENCE REPORTING

The following occurrences forms are available as defaults in SMS360:

**Air Safety Reports (ASRs)** – raised by flight crew to report on operational safety occurrences

**Ground Safety Reports (GSR)** - raised by ground handling staff to report on safety occurrences

**Maintenance Safety Reports (MSR)** - raised by maintenance to report on airworthiness occurrences

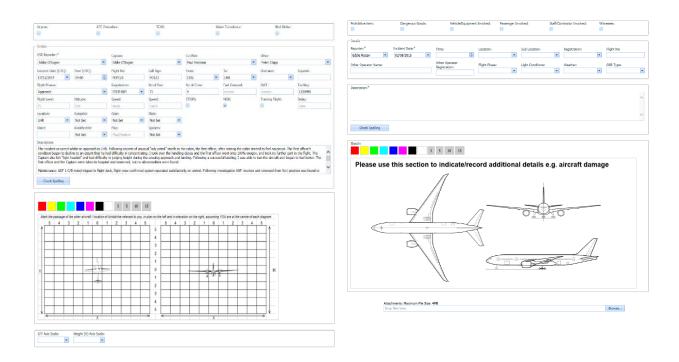
**Cabin Safety Reports (CSR)** - raised by flight attendants to report on operational safety occurrences

Fatigue Reports (FARs) - raised by staff to report fatigue issues



# Air Safety Report (ASR) example example

# **Ground Safety Report (GSR)**

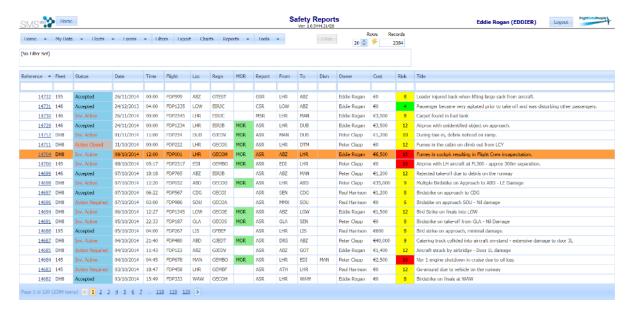


Occurrence forms are submitted via the web-based entry screen in SMS360. The forms are customisable and new form templates can be created. A sketch area can be added to the forms and a template used to illustrate ground damage, Airprox etc. (see screenshots below). Attachments can also be sent such as photographs of ground damage and the form can either be submitted or saved as a draft.

# OCCURENCE MANAGEMENT

Once the occurrences have been submitted, the safety manager/coordinator can either accept or reject them (e.g. send back for additional information from submitter).





The manager/coordinator can then edit or add additional information, classify

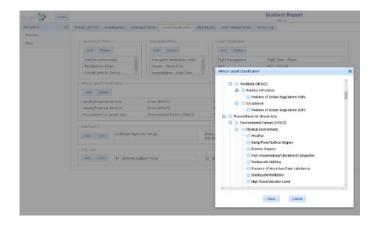
using event and causal descriptors, risk assess using a pre-defined risk matrix and choose whether they need an investigation and or actions raised.



EVENT AND
CAUSAL CLASSIFICATION

Occurrences can be classified in numerous ways and the most popularly used classification in the industry is the IATA STEADES and HFACS descriptor classifications as shown below.

ATA and Accident Type descriptors are also available on

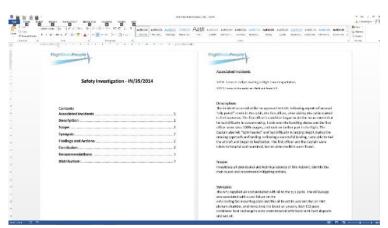




the tab above and other more specific type classifications can be set up in the user definable tab.

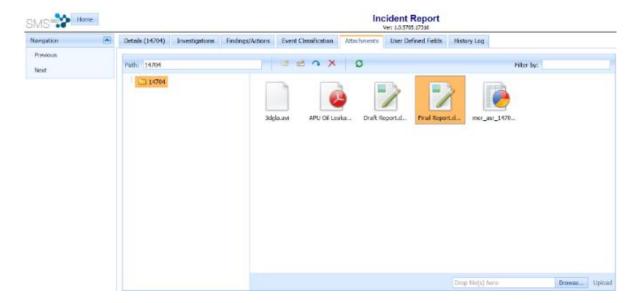
# INVESTIGATION MANAGEMENT

Formal investigations can be raised for an occurrence and the findings from an investigation along with the associated actions can be entered and stored. An investigation report can be produced efficiently using



built-in word templates based on your requirements; e.g. ICAO Annex 13 Investigation format. Data entered into SMS360 regarding the occurrence and investigation is imported automatically into the template and the draft report can be subsequently edited and saved once produced.

The draft and final reports are stored in the attachment area of the occurrence along with any associated evidence for the investigation (e.g. manuals, photographs, flight data simulations etc.)



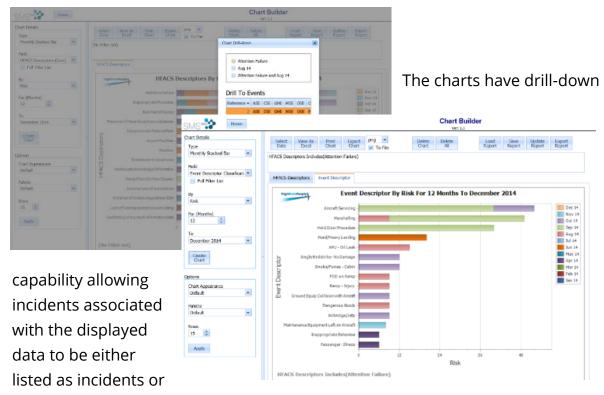


# ANALYSIS AND REPORTS

Trend charts with risk analysis capability and management reports can be easily produced using the powerful built-in tools.
Charts and reports which are regularly required can be saved and re-used for future use. SMS360 also has easy to use search and filtering



facilities which can be used in conjunctions with charts to produce very comprehensive and sophisticated analysis but using the very easy to use tools.

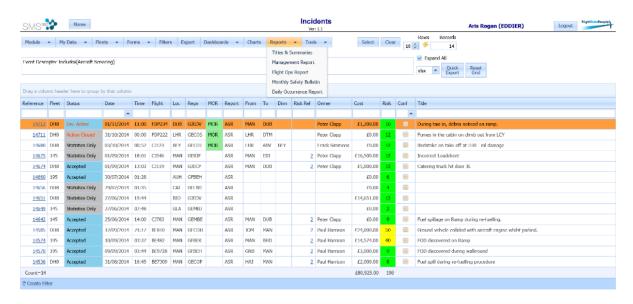


used to create another Trend Chart; in the example shown the top HFACS risk is Attention Failure and the next drill down chart shows what the effects of these failure were.



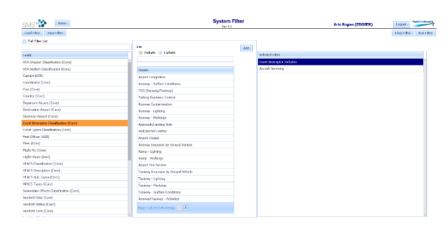
The drill down shows that the top risk by event descriptor caused by attention failure was "Aircraft Servicing followed by Marshalling and Hold Door Procedure.

The user can then drill into the incident list for Aircraft servicing and produce reports or export data if required.



#### **FILTERS**

SMS360 has comprehensive but easy-to-use filters to allow filtered lists of incidents to be produced. These filters can be applied prior to producing

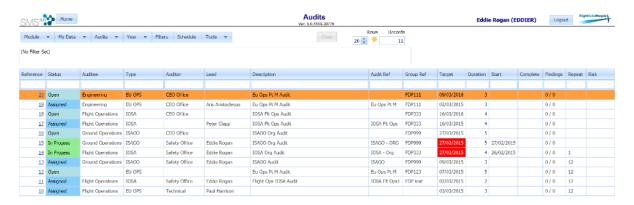


reports, charts or exports allowing control and flexibility of the outputs from SMS360. This can have a huge efficiency benefit when producing regular safety board reports etc.



# **AUDIT MANAGEMENT**

Routine and ad-hoc audits can be scheduled and managed using SMS360. Repeating audits can be scheduled and auditors assigned. Notification email templates are available to communicate the various stages of the audit process to auditors, auditees etc.

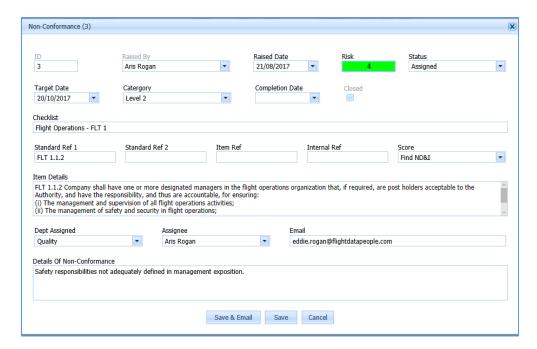


Checklists can be imported to create Checklist Templates within SMS360 and these can then be used by the auditor to score and enter Non-Conformities (NCs) as appropriate.



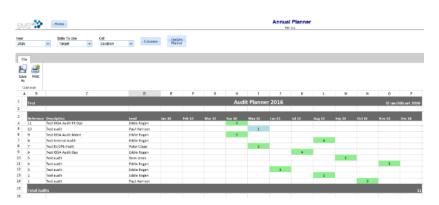
The NCs from the checklist are then automatically imported into SMS360 after review. The NCs can be risk assessed and then be sent via email from within SMS360 to the auditee who can submit their proposed Action Plans via a link in the NC email. This means that the auditee need not log in to SMS360 which reduces training and admin overheads. Once the proposed Action Plan has been submitted, the auditor can accept or reject it from an email link or can login to SMS360 and manage the process from within the system.





Once the audit is complete the Lead Auditor can produce the final audit reports using a report template which can then be disseminated by email to interested parties.

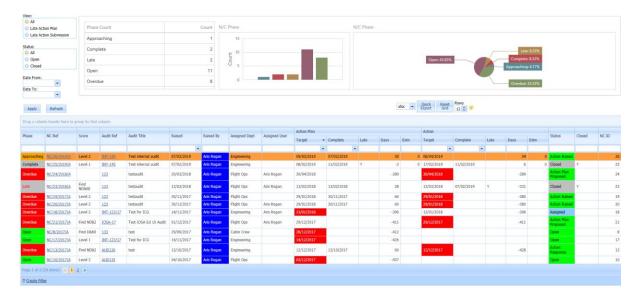
A customisable annual audit plan can also be produced and printed or exported to excel if required. This type of plan can be produced for the whole organisation or for



different departments, audit types, auditors etc. The columns are target dates displayed are also customisable.

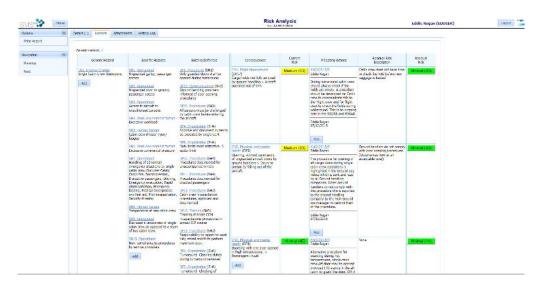
Non-Conformances can be tracked and managed easily, and statistics produced for oversight purposes. High Risk Non-conformances can be escalated to the Risk Analysis module.





# **RISK ANALYSIS**

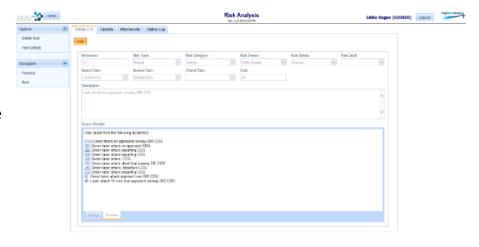
The SMS360 Risk Analysis module allows Hazard Assessments to be conducted for real and potential risks. Effective and Ineffective defences and the consequences can be identified during this process and risk assessed. Mitigation actions can then be raised to address these risks and the residual risk identified. Information related to Hazard Assessment process is entered in a user-friendly screen as shown below and descriptors for hazards, defences and consequences can be entered as well as the actual full description.



Incidents, FDM Events, Investigation and Audit findings entered in SMS360 can be escalated from the system to the risk register and links in the risk analysis details screen will display these and provide hyperlinks to the sources. Non-SMS360 hyperlinks can also be set up such as published Accident Reports on external websites.



Each department or post holder area can view their risk registers and users with the correct access will be able to view the corporate risk register allowing them a holistic



view of safety risk throughout the organisation. The risk register is an ideal tool to demonstrate to the regulatory authority that you have a totally integrated SMS and that you have oversight and are managing the organisation's top safety risks.

# **DASHBOARDS**

As well as the built-trend charts and reports, SMS360 also has interactive and configurable dashboards which allows data to be presented to users and non-users of SMS360. These dashboards can also display data not stored in SMS360 such as non-safety operational metrics.





# OFFLINE REPORTING APPS

Occurrences can also be reported offline using the SMS360 Reporting App for IOS and Android devices. The App using the same forms set up in SMS360 and will either automatically upload a completed occurrence form if connected or the reporter can synchronise later when online. The App allows



forms to be returned to the reporter along with feedback if required.



The offline occurrence form can be saved as draft or submitted. The device camera is accessible from the App and previously stored photos can also be uploaded where required. Any form design changes made in SMS360 will be downloaded to the App when connected online.



# RETURN ON INVESTMENT (ROI)

The primary reason for choosing SMS360 is to improve safety management and reduce safety risk within your organisation. However, SMS360 will also produce a Return on Investment (ROI) from savings in operational cost associated with incidents such as aircraft/equipment damage, staff and passenger injuries and operational disruptions such as air turnbacks and delays. SMS360 records the costs associated with an incident and the built-in analysis tools can show where these costs are most prevalent.

One of the main objectives of SMS360 is to address the root causes of incidents and to avoid a recurrence which will lead to a reduction in incident-related costs. This is the basis of a "learning organisation" which will not only reap benefits in safety but also efficiency; an effective safety culture can also be an efficiency driven culture.

There will also be savings in manhours and resources in producing analysis and reports by safety staff who will be able to spend more time on investigating root causes and establishing and monitoring mitigating actions.

Finally, SMS360 is a hosted solution which means that means zero costs for company IT resources as FlightDataPeople will do all of the set-up, support, IT admin and upgrades for you. This will also have a positive effect on the ROI.



# HARDWARE AND SOFTWARE REQUIREMENTS

SMS360 is a hosted solution so there is no need to purchase hardware. SMS360 can be accessed by the popularly used web browsers such as Internet Explorer, Firefox, Google Chrome and Safari. This means the system can be accessed via iPads and other portable devices with internet access.

The advantages of FlightDataPeople hosting the solution for you includes:

- ✓ Uninterrupted service with reduced internal manpower requirements allowing operator to focus on Safety Benefits rather than system operation
- ✓ Developed and proven system functionality
- ✓ Secure remote access from anywhere in the world with suitable internet connectivity. Access via Windows PC, IPad or Android device
- ✓ Secure data storage & retrieval
- ✓ Access to full range of Technical and Operational expertise and proven support infrastructure from FDP
- ✓ In-house system interfaces
- ✓ Compliance with all existing regulatory requirements
- ✓ ISO 9001: 2008 accreditation.

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