# Discover RailSmart from 3Squared

Software and Implementation Expertise to Transform Your Rail Operations





A Velociti Group Company



# Why RailSmart?

- RailSmart software solutions help rail operators and supply chain businesses reduce costs, improve efficiency, communicate better and enhance their operational performance.
- We can help you transform your organisation with the RailSmart platform.
- RailSmart is a range of digital solutions for rail companies to help manage passenger information, operational safety, resourcing, planning, compliance and risk, all whilst reducing incidents, improving performance and driving customer satisfaction.

## RailSmart by numbers







# **Your Success – The 3Squared Way**

### Why choose 3Squared for rail software?











**Rail industry innovation** 

We start with the reality of UK rail, not generic business solutions.

This allows us to build rail solutions specifically to answer and simplify its complexities.

### **On-side implementation**

Brilliant software is not enough on its own.

Success demands superior engagement of all stakeholders to speed and smooth the path to project success.

### **Future ready technology**

All 3Squared solutions are designed to be delivered individually...

... but their ability to be used collectively enables them to grow into an integrated strategic infrastructure.



## **Our Team**

### We have a dedicated team of experts with a blend of experience across the rail industry



Martine Dodwell-Bennett Divisional Director

Passionate about understanding the customer journey, Martine's focus is on taking the time to listen to customers and build the business proposition to address their emerging needs.



Martin Gleadow Head of Customer Success

Martin is a well-known face across the rail industry and is often found out and about at various events across the country, discussing hot topic rail issues and the technologies and solutions that 3Squared provide.



Jason Durk Principal Consultant

Jason brings a wealth of experience from across the rail sector, having worked in the industry for close to 27 years at the Rail Delivery Group and several train operating companies.



**Stewart Wells**Rail Industry Consultant

Experienced in a wide range of disciplines within the railway, Stewart is always looking to find novel ways to use existing information to achieve new things.



### We are not alone



- 3Squared is part of Velociti Group, a leading specialist software and consultancy committed to digital transformation in transport, focused on avoiding the complications, limitations, delays and risks that compromise in software provision can inevitably bring.
- Velociti Group is backed by Literacy Capital, a closed-end investment company focused on investing in and supporting UK businesses and helping their management teams to achieve longterm success.
- Literacy are unique in that they are the only investment fund to have been set up with a charitable objective - to donate 0.9% of their net assets every year in cash to literacy charities in the UK, amounting to more than £6.4 million since Literacy's creation in 2017
- Find out more about <u>Velociti Group</u>





# 3Squared are proud to work in partnership with:



































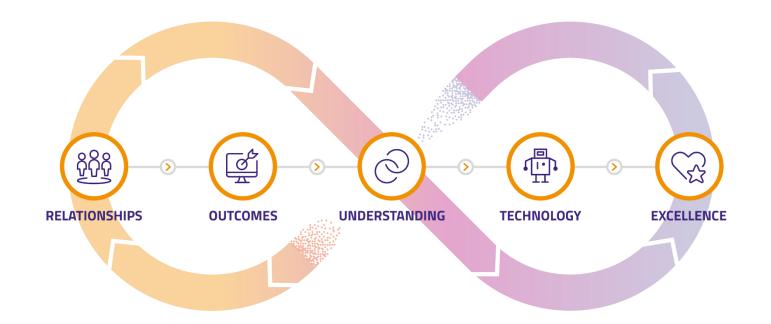












# OUR **ROUTE** TO SUCCESS

#### **RELATIONSHIPS**

We care about people
– ours and yours

#### **OUTCOMES**

We deliver tangible results

#### UNDERSTANDING

We live and breathe the transport industry

#### **TECHNOLOGY**

We build and innovate to solve real world problems

#### **EXCELLENCE**

We believe in doing it right





# **RailSmart Solutions**

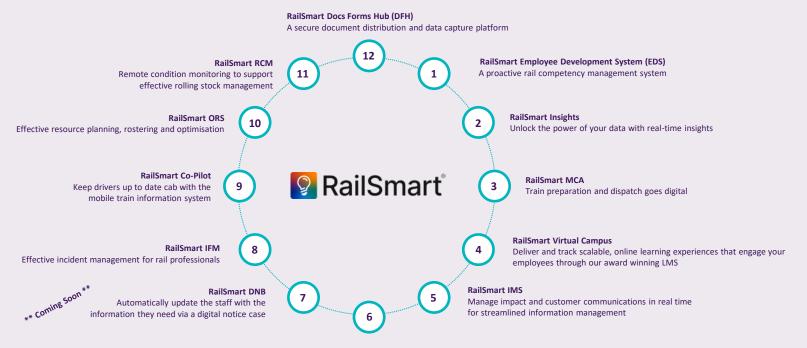
### Award-winning rail management technology

### RailSmart has solutions to help with:

- Safety & Compliance
- Resourcing & Planning
- Operations & Performance
- Effective Communication
- Passenger Information



## **RailSmart Solutions Overview**



#### RailSmart Customer Information Suite

Dynamic route maps, station accessibility information and online timetables to keep passengers informed





## **RailSmart EDS**



### A proactive competency management system built for rail

- A structured approach to competency assessments
- Competency focused around interactions
- Complete visibility of employee competency
- Significant time saved and reduced administration burden



"RailSmart EDS is extremely user friendly. It is simple to use, significantly reduces admin time for our assessors, which in turn enables us to be more productive as a Training and Competency Entity. It is widely used by internal stakeholders who need a snapshot of competency in their area, and they can navigate and pull information from the system with ease."

#### **Daniel Miller**

Head of Training & Competence UK / Alstom







# **RailSmart EDS Key Features**





#### Administer assessment cycles

Define and manage competency cycles, for the different roles within your organisation.



#### Skills and certificates

Track employee skills, manage skill renewals and award certificates.



#### Manage performance criteria

Create performance criteria sets for each of your cycles and monitor them using our competency management system.



#### **Define planned interactions**

Define interactions as part of a competency cycle.



#### **Employee incident** management

Track and manage all your operational incidents.



#### Medical management

A GDPR compliant solution for the management of employee work-related medical examinations and the recording of results.



#### **Employee support plans**

Support and develop employees' competencies with tailored proactive and reactive support plans to easily improve railway training.



#### **Training paths**

Manage and track employees' railway training programmes.



#### Assessment module

Conduct assessments for train drivers and other staff, along with further planned interactions using the EDS mobile application.



#### Interaction planner

View your upcoming employee assessments and other interactions.



#### **Analyse**

Analyse staff and driver assessment data and gain an insight into the overall competency of your workforce.



#### Verification and auditing

Verification tools to help promote standardisation, consistency and accuracy to competency management across the whole organisation.



## **RailSmart DFH**





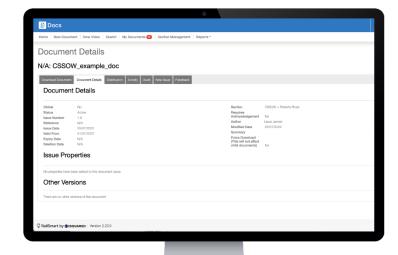


### A secure document distribution and data capture platform

- Organise and distribute important documents to teams
- Track document receipt and acknowledgement of time sensitive information
- Manage version control and work offline
- Build and circulate data capture forms

Over 200,000 documents have been distributed with RailSmart DFH including:

- Inspections and checklists
- Risk assessments
- Compliance and safety checks
- PONs and WONs
- Diagrams and rosters
- Safety documentation





# RailSmart DFH Key Features









#### Form builder

Create forms quickly and easily with our drag and drop interface.



#### Multiple field types

All the standard form elements you would expect including text boxes, date pickers and drop-down boxes.



#### Multimedia

Supports the attaching of photos, videos and audio when completing a form.



#### My to do's

Allocate forms to individuals and view all those forms that require your attention.



#### **Ouick search**

Quickly find documents or sections of documents with the keyword search tool.



#### Bookmark or favourite

Bookmark important sections of documents for quick and easy access.



#### **Read receipts**

Confirm the date and time that recipients have completed your forms.



#### Acknowledgements

Require acknowledgement and proof of reading for assurance that forms have been received and read.



#### Version control

Never have old or outdated documents in circulation again thanks to in built version control.



#### Print

When a hard copy is needed, AirPrint documents straight from the DOCS app.



#### Location aware

Attach GPS co-ordinates or location to a form.



#### Notifications

Receive notifications when a form has been completed.



# **RailSmart Insights**



### Unlock the power of your data with real-time insights

- Understand the risks answer questions with evidence
- A single point of truth with instant information
- Interactive and intuitive dashboards with 'drillable' tables and charts
- Make RailSmart Insights your own with our bespoke dashboard creation service





# **RailSmart Insights Key Features**





#### **Assessments**

Filter data by teams, regions and criteria receiving most major and minor assessment feedback.



#### **Incidents**

Review incident by number, timer period and type, allowing focus on areas of concern and potential improvement.



#### Key status

Understand the full picture on key employee data flags such as Authority to Work and Safety Critical Status.



#### **Performance**

Drill into performance data recorded over time to see trends and identify areas for improvement.



#### **Support plans**

Monitor number of employees on Support Plans by team, depot, region and plan status to stay on top of actions, progress and planned improvements.



#### Verification

Stay on top of assessment verification and track by analysing by team, location or even assessor.

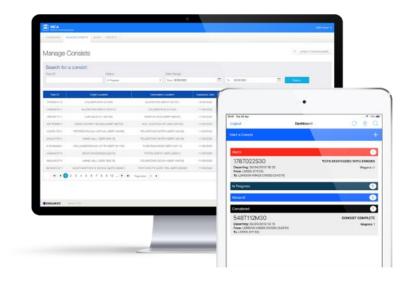


### **RailSmart MCA**



### A mobile train preparation and dispatch platform

- Digitally prepare and dispatch trains from yards, terminals and sidings
- Depart and arrive trains within the app which then updates **TRUST**
- TOPS integration allows consists to be submitted and train documents to be viewed and downloaded from the app
- Quickly create a new consist based on a recently arrived inbound service to speed up train preparation





# **RailSmart MCA Key Features**





#### Digital train prep

Capture the loco numbers, wagon numbers and weight, along with all other train characteristics required for a Train Document.



#### **TOPS** integration

A direct link to TOPS means train lists can now be done remotely using the RailSmart MCA app.



#### Depart and arrive

Depart or arrive a train from within the yard, port, terminal or sidings.



#### **Progress view**

Get a real-time view of trains being prepared and location performance times.



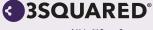
#### Reporting

Analyse and spot trends at train prep locations to help uncover delays and loading issues.



#### Integrations

Integrates with the RailSmart Departure Board app to provide train formation information to control staff.



# **RailSmart Virtual Campus**



# Deliver and track scalable, online learning experiences that engage employees

- Maintain compliance and track learner performance
- Increase knowledge retention and improve outcomes
- Consolidate and streamline your key content
- Improve your onboarding experience
- Minimise your administrative overheads





"Partnering with 3Squared for our competency management solution EDS gave us every confidence in choosing their newly released RailSmart Virtual Campus as our LMS. We are looking forward to accessing the comprehensive catalogue of pre-built courses from this robust and well acknowledged platform."

#### **Adam Young**

Learning and Development Manager, MerseyRail





# **RailSmart Virtual Campus Key Features**





#### Search and discover with AI

Powers your onboarding efforts and ignites employee growth by giving you a learning ecosystem to centralise, organise and distribute courses, track certifications and measure results.



#### Uses the latest technology

Seamlessly scales to meet the evolving needs of organisations of any size. RailSmart Virtual Campus progressive suite of apps and features adapts to your unique needs, scaling as learning projects become more sophisticated.



#### **Automated admin tasks**

Cuts tedious and error-prone admin tasks by automating them to give learning admins more time for other valuable activities. Define rules, let the system do the work, and don't worry about enrolling users manually ever again.



# Improved visibility and monitoring

The RailSmart Virtual Campus 'My Team View' gives managers unprecedented access to directly monitor their team's learning activities and address overdue certifications.



#### **Reduced learning costs**

Avoid the costs associated with inperson learning. RailSmart Virtual Campus e-learning eliminates venue hire, accommodation, and trainer fees. Staff can train as needed, either from their desks or while out and about, reducing time spent away from work.

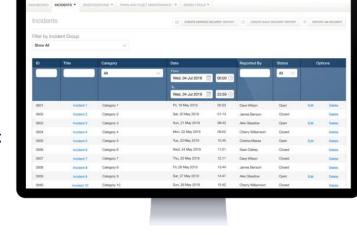


### **RailSmart IFM**



An incident management solution to help you make smarter decisions during disruption

- Record multiple incident types with actions assigned and updates captured
- Easily manage notifications through distribution lists to send notifications to the right people as incidents unfold
- Tag people, assets and head codes in your incident to provide context and relevant information
- Collaborate on resolving issues and monitor progress from opening the initial event though to closing the incident.









# **RailSmart IFM Key Features**





#### **Define incidents**

Record multiple incident types and capture an array of configurable incident information to track and analyse the data to easily find trends and identify areas that need improvement.



#### **Smart tags**

Tag people, assets and headcodes in your incident to provide context and relevant information.



#### **Attachments**

Easily add supporting documentation such as images, video or audio to incidents to provide as much information as possible, so you can effectively resolve it.



#### **Timeline**

Add live updates to incidents as events unfold in real-time, keeping everyone informed with the latest information so you're all on the same page when working to resolve things.



#### **Notifications**

Accurately create distribution lists to send notifications to the right people as incidents unfold making sure everyone has the information they need to do their job effectively.



#### Actions

Quickly assign actions to collaborate on resolving issues as efficiently as possible. Monitor progress from opening the initial event through to closing the incident so you know exactly what stage you are at.



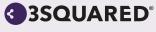
#### 360 collaboration

Our incident management software includes the Companion IM mobile app allowing your on-site team to add key evidence, updates and photos to incidents.



#### **Reports**

Produce a daily incident report to give a complete picture of operational performance.

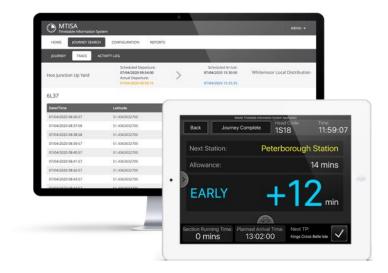


### RailSmart CoPilot



An 'in-cab' train performance analysis and delay reporting solution

- Real-time feedback enabling drivers to minimise delays and optimise fuel usage
- Train performance analysis Identify trends and common reasons for delay
- Portable installation as an app on the driver's tablet device
- End of journey delay reporting by the driver
- Control the cost of network delays by correctly attributing cause based on driver feedback





# **RailSmart CoPilot Key Features**





#### Intuitive

The simple and intuitive interface allows for quick learning and ease of use.



#### **One Touch**

Capture important information when it is safe to do so, such as wheel slippage or rough riding.



#### **Punctuality**

Provides performance against realtime Network Rail timetables, allowing drivers to regulate the train accordingly for consistent timetable compliance.



#### **Delay capture**

Allows drivers to provide reasons for delay that are linked to the standard TRUST delay reason codes.



#### **Performance**

Journey performance is recorded allowing routes, rolling stock and drivers to be assessed.



#### **Competency management**

Integrates with RailSmart EDS to automatically update a driver's route knowledge once a journey has been completed.



#### Stop

Avoid failure to stop incidents. MTISA provides a visual countdown and audible alert when approaching stations.



#### Installation

No need for expensive in-cab proprietary hardware as MTISA can be installed on existing tables.



### **RailSmart ORS**



Generate staff rosters tailored to your needs that deal with the complexity of multiple business requirements, pay and contractual rules

- Plan and create base rosters for staff
- Optimise for weekly and on the day, staff rosters
- Manage fatigue and risk with auto-calculate routines
- Rules based validation of roster possibilities
- Move towards 100% availability with smarter asset management





# **RailSmart ORS Key Features**





#### **Base rosters**

Effortlessly create base rosters for depots, teams or business units.



# Create weekly staff rosters

Use the base roster to create your employees actual working week rosters.



#### Distribute rosters

Quickly and securely distribute rosters to staff digitally using the time management companion application.



#### Change management

Instantly communicate changes to booking on and off times, diagram alterations and more.



#### Fatigue and risk

View and manage staff fatigue and risk.



#### **Employee Timesheets**

Review, manage and approve your employees' submitted timesheets.



#### Flight paths

View and review employees contracted hours, flight paths and utilisation.



#### Diagrams and work orders

Import, view and edit diagrams, work orders and jobs.



#### Rule management

Configure employee contractual rules, regulatory requirements and agreed employee conditions.



#### **Route and traction**

Integrates with RailSmart EDS to provide comprehensive route and traction competence checks.



#### **Cloud based**

Secure access to RailSmart ORS whenever you have access to a standard internet browser.



#### Scalable

Manage depots, regions, business units and countries all through a single instance of RailSmart ORS.

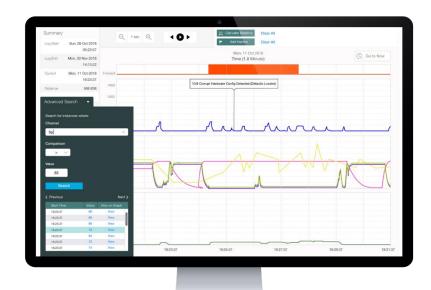


### RailSmart RCM



Automated remote condition monitoring to support proactive rail maintenance

- Make more informed fleet management decisions with the availability of near real-time asset information and train monitoring
- Live and historical analysis with data grouped by head code, driver, or a defined time series
- Instant notifications Define triggers and receive instant notifications for proactive monitoring of trains and assets
- Move towards 100% availability with smarter asset management





# **RailSmart RCM Key Features**





#### Monitor multiple channels

Monitor any number of digital and analogue channels to improve train performance.



#### Intuitive data grouping

Groups data by head codes, journeys, drivers and time series for transparent train monitoring.



# OTDR integration & remote condition monitoring

Safely integrates directly into the ontrain data recorder (OTDR) meaning no on-site visits for OTDR data collection.



#### **Triggers and alerts**

Configure RailSmart RCM to monitor and alert you to any variance in channel data.



#### Real-time remote rail monitoring

Remote condition monitoring gives you a near real-time view of asset health to help make more informed decisions.



#### **Fleet defects**

Links in with the RailSmart IM solution for the proactive analysis of fleet defects to monitor train condition.



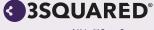
#### Historical train performance data

Rail monitoring solution providing instant access to time series asset information for deeper trending and analysis.



#### **Data exports**

Export data channels or collections of data into popular file formats.



## **RailSmart Customer Information Suite**



A range of outstanding passenger information solutions:

- Simple to manage, beautiful interactive Dynamic Route Maps
- Publish fully customisable and accessible Online Rail Timetables
- Embed a Live Departure Board in your company website to display a wealth of information to customers
- Auto-updated Station Information Pages in your site to help customers understand station facilities



- Click the links below to see these solutions working in customer websites!
- Live Dynamic Route Maps
  greateranglia
- Live Train Departures
  southeastern





## **RailSmart DRM**



An auto-updating interactive dynamic route map with passenger information

- Beautiful dynamic route maps with live disruption information
- Publish fully customisable and accessible online rail timetables
- Engineering 'look ahead' and alternative bus routes
- Provide clear information for travellers
- Simple to use configuration and management



"We needed a way to present information to customers in a really easy, clear, digestible way that was personal to them and their part of the network. What we wanted was to update the map automatically and so now, by having the map connected into Darwin nearly all manual intervention has gone"

John Till

Head of Information Delivery, Southeastern



Click the link below to see these solutions working in customer websites!



Live Dynamic Route Maps





Berney Arms

Oulton Broad North

Oulton Broad South

Hoveton & Wroxham

Reedham

Somerleytor

Buckenham

Stowmarket



# **RailSmart DRM Key Features**





#### Zoom in / out

See the level of detail on the map change when zooming in or out.



#### Mobile friendly

Optimised for use on mobile devices.



#### Make it yours

Completely customisable map and key allows you to be clear and on brand.



#### **Auto-updates**

When the data changes on NR or NRE systems the map stays up to date.



#### **Delay flexibility**

Set clear parameters for what constitutes a minor or major delay.



#### **Colour coding**

Use intuitive map colour that auto-changes when status is updated.



#### **Alternative routes**

Switch on and show alternative bus routes to passengers when required.



#### **Accessibility information**

Provide clear information on station accessibility for passengers with special needs.



#### Look ahead

Use the calendar 'look ahead' to display delay impact during engineering works.



#### **Service information**

Help passengers by sharing platform access location, train layout and more.



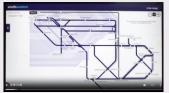
#### Station data

Share station information – on parking, lifts, facilities and other station details.



#### **Easy CMS**

A simple and 'self-running' Content Management System.





<u>Click to watch the DRM video overview</u> <u>presented by John Till, Head of Information at</u> Southeastern Railway



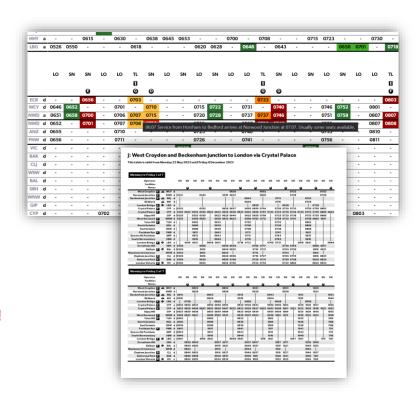
# **RailSmart T&T (Trainset and Timetables)**



Provides passengers with accessible timetables and related travel information

- Embed a clear online timetable in your company website
- Timetable options with flexibility of output (HTML & PDF)
- Display train loading information
- Accessibility built in screen reader compliant
- Your timetable your way
- Click the link below to see these solutions working in customer websites!
  - **Live Timetables**







# **RailSmart T&T Key Features**





#### NR CIF file ready

Reads the Network Rail timetable and allows for reformatting for passengers.



#### Mobile friendly

Online timetables are optimised for use on mobile devices.



#### **HTML or PDF**

Online or PDF versions of your timetable added seamlessly to your website – with your branding.



#### Accessible format

Screen reader compatible for those with a visual impairment.



#### **Colour coding**

Timetable shading to show train loading and peak travel times.



#### Managed service

We can create your customer facing timetables for you...



#### **Managed changes**

...and deal with short notice changes for engineering works or disputes.



#### Your call

If you prefer you can use Trainset to manage the timetable publishing yourself.



## **RailSmart LDB & SIP**

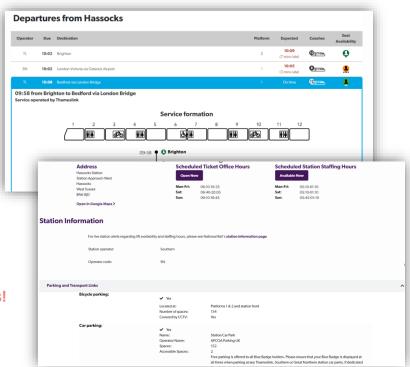




Clear, accurate and up to the minute information on train departures and station facilities (Live Departure Boards & Station Information Pages)

- Up to the minute information on live departures and arrivals with details of platform numbers, cancellations and delays
- Easy to read station summary information
- Station detail for when passengers need more granular facts and figures
- Automatically updated by connection to the Network Rail and National Rail Enquires systems
- Click the links below to see these solutions working in customer websites!
  - Live Train Departures
    southeastern







# **RailSmart LDB & SIP Key Features**







#### Departure data

Passengers can see all trains departing any station with relevant contextual data.



#### Station search

Simple searching by station name to surface all relevant data for that station.



#### **Progress updates**

Customers can follow the progress of the train in real time.



#### Services information

Keep customers up to date with train loading, facilities location, carriage layout and more.



#### **Auto updates**

Links to the Network Rail Darwin and National Rail Enquiries Knowledgebase systems keep everything updated.



#### **Display flexibility**

Determine what items of departure and station information you do and don't want to show to passengers.



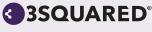
#### **Custom design**

Complete flexibility on how your departure and station information looks.



#### Web embedded

Both solutions can be seamlessly added to your website – with your branding.



## **RailSmart IMS**



Keep track of incidents, faults, stranded trains – and ensure everyone is updated at the push of a button. Information management and incident reporting is all in one place.

- Displays a live feed of various incidents, faults and stranded trains across the network
- Allows users to easily create, update and edit data
- Understanding and reporting the causes and impacts of an incident and how and when various communications happened
- Details any service gaps caused by delays or cancellations within the current 24-hour period
- Keep track of high priority trains

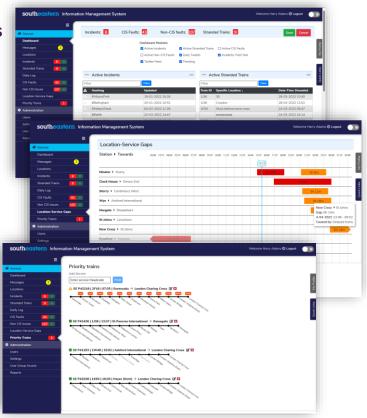


"Traditionally in major disruption all the focus is on stranded trains and those trains in platforms are considered 'safe' and are often forgotten about, resulting in customer service failure. The service management element of IMS allows us to look after customers from an operational standpoint."

John Till

Head of Information Delivery, Southeastern







# **RailSmart IMS Key Features**





#### **Dashboard view**

Clear, data driven colour coding presents users with an 'at-a-glance' view of key information.



#### One click reports

A single click produces a detailed information and communication summary PDF for sharing.



#### **Targeted messages**

Embedded communications tools allow for targeted messaging to defined user groups.



#### Searchable tables

Finding data in table lists is simple with powerful filter, sorting and toggle tools to help.



#### Location data

Faults and incidents can all be linked to network locations (e.g. stations) to analysis by location.



#### Stranded trains

Declare stranded trains to manage this high priority incident type – with colour coding to show delay times.



#### **CIS** faults

Keep track of CIS faults and communicated directly with locations and system suppliers.



#### Service gaps

Ensure everyone understands the impact of cancellations and delays with a visual overview.



#### Daily log

A shift rota and all relevant incidents and communication logs for the selected date.



#### **Held services**

Automatically pulls in services which are currently held at, or between stations.



#### Social media

Store and timestamp messages pushed to customers via social media for a complete record.



#### #Hashtags

Record and use agreed hashtags for incident communications to help customers find updates...





<u>Click to watch the IMS video overview</u> <u>presented by John Till, Head of Information at</u> Southeastern Railway



**Case Study** 





A Velociti Group Company



Alstom and 3Squared: Making competency management simple

"If you need a system that is user friendly, can manage all your training, assessment and verification needs and is a proven tool within the rail industry, I recommend EDS.

EDS has allowed us to transform as a company in the way we manage competency."

Daniel Miller
Head of Training &
Competence UK
Alstom

**Case Study** 



A Velociti Group Company







LNER and 3Squared:
Digital solutions to drive effective competency management

"We have been using RailSmart EDS for the last 7 years and it has made a significant change to our business. Bringing in an electronic system means we have a better oversight of our competency management arrangement, allows us to work with teams and provides all records in front of us on screen."

Melanie Sewell,
Safety & Environment
Programme Manager
LNER

# Discover RailSmart from 3Squared

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For further information on 3Squared solutions and the RailSmart suite of software:

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