# RAIL DISRUPTION

The Challenge

Rail disruption can be caused by an array of different factors including fatalities, staffing issues, signalling problems and adverse weather issues; managing service disruption is a significant and highly complex challenge for the rail industry. Train Operating Companies (TOCs) must coordinate a response involving trains, services, on-board and platform staff, multiple third parties such as Network Rail and British Transport Police, as well as ensuring passengers are provided with the latest, correct information about when their next train will be available and whether they may use their ticket to travel with a different TOC. They need to do all of this while ensuring that normal service operations are restored as quickly as possible to avoid facing performance penalties and damage to customer satisfaction. Until now this process has largely been coordinated by a complex series of cascading phone calls, text based messages and manual processes that frequently overlap and often contradict.

A disruption management solution has not been developed in the industry before as the problem has always been deemed too difficult to fix.

The Solution

AP3*'s Rail Disruption solution is a fully integrated suite of applications that manages operational plans and customer service during periods of disruption. Control staff are able to coordinate and instantly communicate the required recovery plan to a particular type of disruption, drastically reducing the number of inbound and outbound phone calls to the control centre. Frontline staff are empowered with real-time access to the latest information and recovery plans on any mobile device. They are able to see the information that is directly relevant to them and provide their response into the process by updating and closing tasks that have been assigned to them. This enables staff to provide accurate information to customers and for customers to proactively access information for themselves to plan onward journeys and alternative routes.
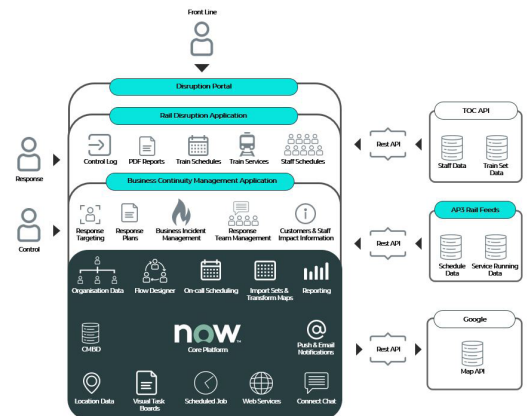
Key Features and Benefits

AP3's rail applications are built on ServiceNow, the market-leading digital workflow platform. ServiceNow offers a single platform that can be integrated with almost any other data source to provide a powerful single source of information. This lends itself perfectly to the automation of complex processes that require real-time information from multiple data sources. It also makes our solutions highly scalable.

Rail Configuration Management Database (CMDB)

Underpinning each AP3 application is our Rail CMDB; a system of core, related, rail data integrated with industry data feeds so that it is automatically maintained. Included in Rail CMDB:

· Station locations

· Service schedules

· Services

· Timing Point Locations (TIPLOCs)

· Train Operating Companies

With the ability to also integrate with unlimited internal TOC data sources or data lakes, to further enrich the automation capabilities of our solutions.

Control Log

Critical to all TOC operations, the control log is a record of all the unplanned operational events across that network for the day. Traditionally the log is manually maintained in an isolated static format and communicated out to staff. By managing the log in ServiceNow TOCs have a fully auditable, referenceable and searchable record of activities. If the potential to cause disruption is anticipated, the log entry can be escalated easily into a Business Incident and a Response Team and plan will be automatically assembled (see below).

Staff scheduling

We can integrate with a TOC's staff scheduling applications and on-call rotas or manage this information directly in ServiceNow. This gives the Control Team visibility of who may be impacted by events affecting stations or services and to automatically assign staff to Response Teams.

> **" "** *This application has greatly improved not just our speed of response, but the consistency of information that our staff, and most importantly our customers receive.*
>
> **Simon Greaves | Control Centre Operations Manager | Avanti West Coast**

Business Continuity Management

Once a Control Log is recognised as having the potential to cause disruption, requires a set plan of action, or a higher level of management, it is escalated to a Business Incident and the two records are kept completely in sync, eliminating the need to manually communicate between the two teams. In planning a response to the incident, a Response Team is automatically assembled based on the targets impacted and the action plan required. A Response Manager can select from a set of pre-defined response plans with pre-populated tasks and information, with the ability to amend as needed or create one from scratch if required. Features include:

- Automatic assignment of tasks based on on-call schedule and staff shifts
- Customer-specific tasks to capture the destination of customers who may; be vulnerable, require assistance, be accompanied by a service animal, or have any other special requirement
- Staff-specific tasks to capture staff welfare and determine whether support is required
- Automatic updates via push notifications to Response Team members' mobile devices
- Ticket acceptance capture and communication
- Internal and external customer messaging for consistent communication to passengers across the network
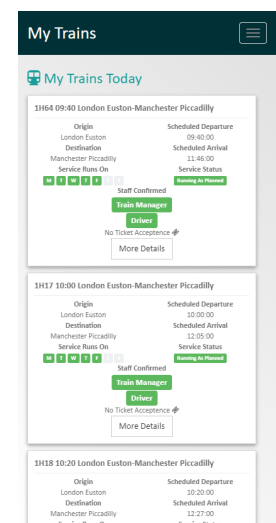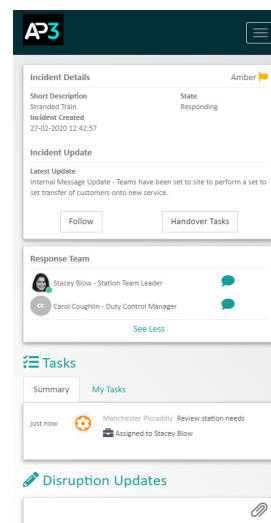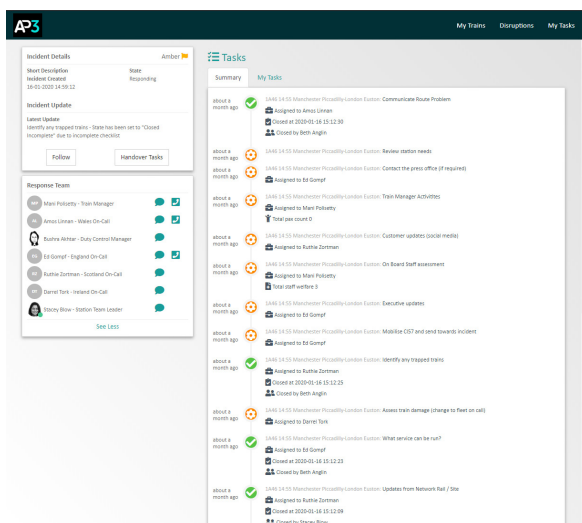
Disruption Portal

The Disruption Portal provides the Response Team and other front-line staff with real-time information on any current service disruption, as well as information specific to their role within the incident, location or schedule. Staff have full visibility of all tasks and the teams involved, allowing them to start a chat directly with a group or a phone call with a team member. Staff can provide updates directly from their mobile device including uploading photographs directly into the incident or task.

My Trains Application

During the development of Rail Disruption we received feedback that a lot of the information being made available during disruption would be useful to staff even during normal operations. AP3 developed the 'My Trains' application to show staff all the information related to the services they are assigned to that day, with changes being reflected in real time.

Results

AP3's Rail Disruption application was rolled out to Virgin Trains (now Avanti West Coast) in May 2019. Known internally as 'Back on Track', within 2 months Virgin Trains reported that 85% of all potential users had used the application with one particular event being viewed or responded to by 30% of all on-duty staff. The impact to their Control Team has been incredible with a reported 70% reduction in calls to and from Control during times of disruption. This has resulted in a much calmer working environment and has reduced the levels of stress in the Control Team.

These results are filtering through to their customers too. The National Rail Passenger Survey reported an 11% improvement in how Virgin Trains dealt with delays and a 12% improvement in the usefulness of the information provided to customers.