

# Smarter, safer and more sustainable solutions for the rail sector



Powering safety, comfort and efficiency for enhanced passenger experiences

The power behind **your mission**





# Meeting the needs of rail operators

Johnson Controls provides leading building technology and solutions to meet the needs of your railway facilities and power the outcomes that matter most: safety, comfort, and sustainability.

We have a wide range of solutions for the railway industry that create a smarter, safer, more connected and best-in-class travel experience across your rail infrastructure.

We have the deepest product portfolio - but we also have trained rail personnel and industry accreditations, with the knowledge and knowhow to design and install systems to meet the unique demands of the rail industry.

Whether it be for stations and depots, or control rooms and other management centres, we can add value across your operations with holistic technology plans that are compliant with rail standards and regulations.

## What we offer

- Products**
- CCTV
  - PA/VA
  - HVAC
  - Fire and intruder alarms
  - Fire detection and fire suppression
  - Customer information systems
  - Perimeter detection
  - Access control
  - Building automation
  - Building Management Systems
  - Building-wide systems integration
  - Technology infrastructure improvement
  - Performance infrastructure improvement
  - IoT solutions

- Services: Maintenance, inspections and training**
- Comprehensive maintenance
  - Precision maintenance
  - Testing and inspections
  - Advanced remote service solutions

- Services: Installation commissioning**
- Needs analysis
  - Planning and design
  - Installation and project management
  - Project management

# World-class solutions keep you on track

Johnson Controls boasts one of the broadest and deepest building products portfolios in the business. Whether it's protecting your people or driving sustainability goals, we have something to help you.

We have the solutions, we have the expertise and we have the track record of excellence in design and delivery.

What's more, we have expert teams who ensure your equipment runs optimally throughout its operating life.

In the rail sector, we explore our offering under three key headings.

## 1. Security and Safety

Keeping passengers and staff safe is your priority. We support that in a range of ways.

For example, we have a comprehensive range of video solutions and alarm systems. Our high-quality CCTV allows you to closely monitor and interrogate vital data from your platforms and passengers 24/7, with cloud management systems that help you record, search and deploy video for evidentiary or training purposes from any of your devices.

With security comes safety, and Johnson Controls is also a leader in the fire prevention, detection and suppression spaces, too.

We provide end-to-end expertise through fully-trained experts who can guide you through the regulations and the legal requirements of fire risk assessments. We will then provide guidance on the best fire detection, alarm and extinguishing systems for your specific business needs.

Johnson Controls manufactures, designs and installs an unmatched range of fire suppression systems, all in accordance with recognised British, European and international standards. The range includes sprinklers and valves, special hazard systems and a wide range of related components and fittings.

Overall, our aim is simple: leverage the latest technologies to keep passengers and employees safe with the minimum of disruption to their journeys.



## 2. Comfort

Johnson Controls has a range of HVAC solutions that take airflow beyond comfort and into health.

Our HVAC solutions still lead the market in comfort, ensuring the correct temperature and humidity in passenger and staff zones. This does not just mean great travel for your customers, but enhanced productivity and work satisfaction for your staff.

Clean Air is part of our broader Healthy Buildings approach, where we optimise HVAC to promote healthier spaces. This could be anything from simple controls sequence changes, improved filtration levels, and air handler upgrades to more complex integrated digital solutions that converge on a single platform for easier management.

This is even more important in these times of COVID, where people need confidence that the spaces they occupy and the air they breathe is healthy. We can help you give people that confidence.

## 3. Sustainability

As a business, Johnson Controls embeds sustainability into all that we do – and we are transparent about it, publishing our data and findings publicly. We increase energy efficiency, reduce water usage, and support operations that help protect our environment.

This is no different in rail.

Our systems ingest, digest and interrogate data to provide insights that will help you streamline your operations, realise new efficiencies, and promote smarter use of resources.

For example, our automation systems optimise operating procedures, saving not just man hours that can be redirected to more value-add activities but also energy and water.

In fact, we aim to double emission reductions for our customers by implementing OpenBlue digitally enabled solutions into their operations in the coming years.

Sustainability is good for your business and good for our planet.



# Service that never sleeps

We offer superlative support through our Remote Operating Centre. Our professional engineering team proactively monitors your systems 24/7/365 to identify and rectify small issues before they become bigger, costlier problems.

All this is geared towards providing you with optimal performance, lowered costs and reduced risk of downtime.

## Backed by OpenBlue – the blueprint of the future

OpenBlue is a complete suite of connected solutions that delivers impactful sustainability, new healthy occupant experiences, and respectful safety and security that combines our 135 years of building expertise with cutting-edge technology.

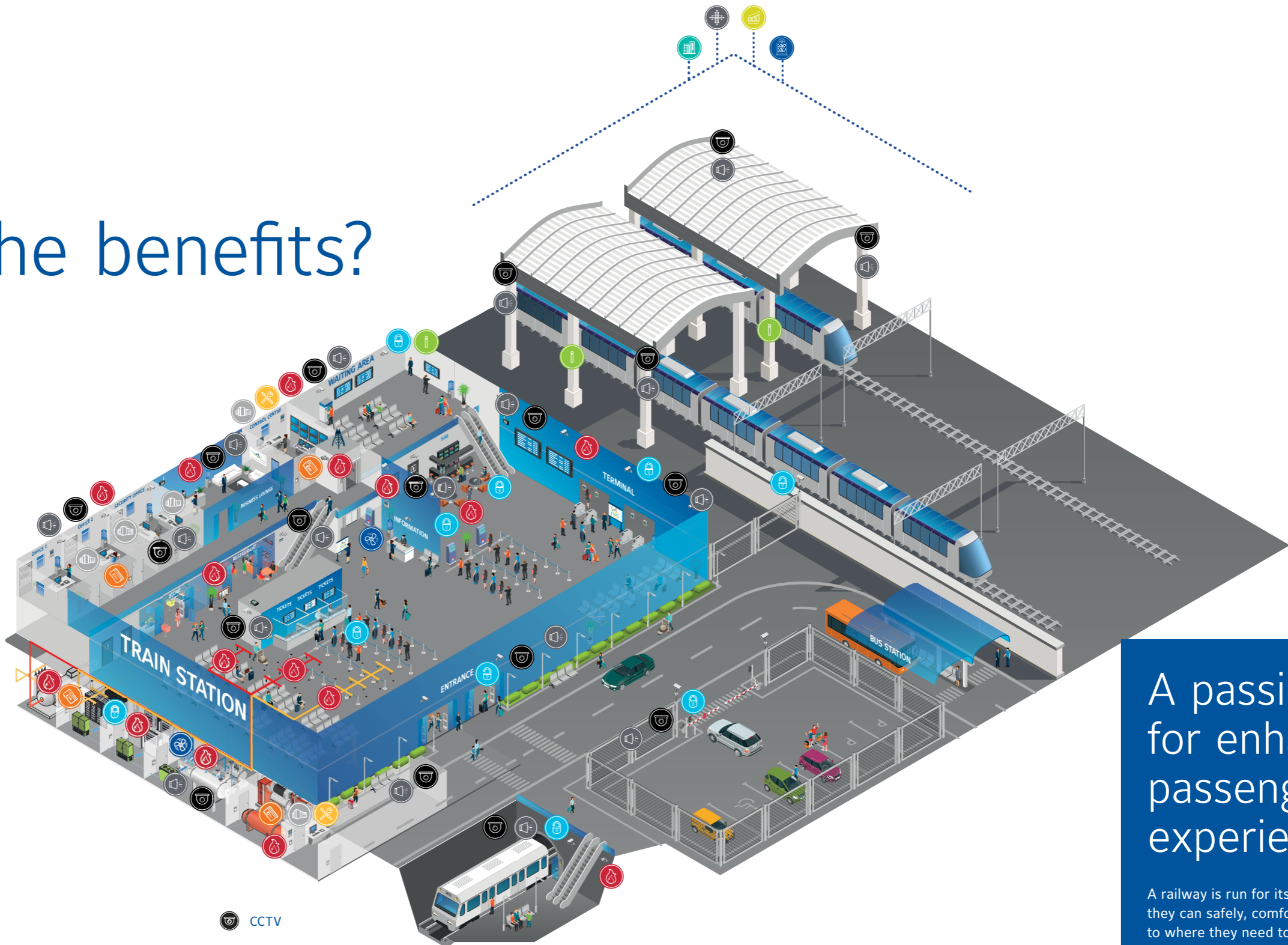
It also features a suite of tailored, AI-powered service solutions such as remote diagnostics, predictive maintenance, compliance monitoring, advanced risk assessments, and more.
















# What are the benefits?

Our solutions provide a range of important outcomes for your business, staff and passengers:

-  Advanced protection
-  Enhanced comfort
-  Positive revenue impact
-  Increased compliance
-  Improved energy efficiency
-  Boosted productivity
-  Enhanced occupant experiences



-  CCTV
-  PA/VA
-  HVAC equipment
-  Security
-  Fire detection and fire suppression
-  Customer information systems
-  Access control
-  Building automation
-  Building management systems
-  Building-wide system integration
-  Technology infrastructure improvement
-  Performance infrastructure improvement
-  Digital IoT solutions

## A passion for enhanced passenger experiences

A railway is run for its passengers, to ensure they can safely, comfortably and quickly get to where they need to be – and back.

We use data and connected systems to facilitate these goals. Our smart systems and technology turn intelligence into actionable insights to improve passenger and operator safety and experiences.

Our mission is to help rail operators ensure every passenger interaction is optimized for the ultimate travel experience.

# Case study: Upgrading CCTV platforms

## Challenges

ScotRail has an annual flow of 97 million passengers annually and owns one of the largest CCTV networks in the UK. They recently needed to replace their existing CCTV control system with an up-to-date digital platform. This video platform had to handle the transition to IP seamlessly and without the need for a full - and disruptive - infrastructure upgrade.

Perhaps the biggest challenge was there was no possibility of a shutdown to facilitate the work. These upgrades had to be carried out while all equipment and assets remained operational to keep people moving.

## Solutions

The project was delivered in two phases to minimise disruption and optimise installation procedures.

In Phase 1, we renovated the CCTV system in the customer service centre by installing our American Dynamics Victor security management platform.

Phase 2 was based around us designing the setup for and installing our American Dynamics Video Edge hybrid network video recorder units in stations.

We expanded the capacity of existing CCTV cameras to allow for additional IP units to be added as needed in the future.

This was no small undertaking, as we replaced analogue video recorders in 279 stations. To ensure we met our key goal of not disrupting operations, we ran a trial that satisfied us we could go about our work without impacting journeys.

## Outcomes

The key win here was to provide a new enhanced control infrastructure and a consolidated, optimised command centre setup for ScotRail.

ScotRail now has a more accurate, more cost-effective and more technologically advanced solution for the ultimate in future-proof safety and security.



## Stats at a glance

- 342 Network Video Recorders upgraded on time and on budget in just four months - with zero downtime.
- Fewer, more efficient IP devices have reduced carbon footprints by 75 percent at the operations centre and 55 percent at stations.
- The ScotRail customer service centre received a National Rail Customer Service Award following upgrade works.

"Johnson Controls is helping us build a security capability fit for the 21st century - a security capability that puts our customers first. We're delighted with the work Johnson Controls has done and are looking forward to building on these foundations as we continually improve our customer service."

**Graham Fiskin - ScotRail Project Manager**

# Why Johnson Controls?

Johnson Controls is an acknowledged global leader in the buildings market. With more than 135 years of innovation excellence and customer service, we have the products and expertise to transform environments across a wide range of verticals.

A key market for us is transportation. Across a range of projects - big and small, local and global - we have developed particular knowledge that makes us a key partner to rail operators.

- **A proven, successful delivery model for rail project execution**
- **Dedicated rail vertical with sector-specific expertise**
- **Rail design assistance for SISS**
- **RISQS accredited by audit**
- **BSI Kite mark for BIM Stage 2 Project Delivery (ISO 19650-1 and -2)**

This is just a brief look at the possibilities.

Get in touch today for more information, please scan here:



### About Johnson Controls

At Johnson Controls, we transform the environments where people live, work, learn and play. From optimizing building performance to improving safety and enhancing comfort, we drive the outcomes that matter most. We deliver our promise in industries such as healthcare, education, data centers, and manufacturing. With a global team of over 100,000 experts in more than 150 countries and over 130 years of innovation experience, we are the power behind our customers' mission. Our leading portfolio of building technology and solutions includes some of the most trusted names in the industry, such as Tyco®, YORK®, Metasys®, Ruskin®, Titus®, Frick®, PENN®, Sabroe®, Simplex® and Grinnell®.

**For more information, visit [www.johnsoncontrols.co.uk](http://www.johnsoncontrols.co.uk) or follow Johnson Controls UK&I on LinkedIn.**

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