



NEWS RELEASE

Reinventing the 08:15 from Glasgow to Edinburgh; Cisco and Partners Enable High-Speed Connectivity on Trains

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Is it the UK's busiest bank branch, a densely populated office space or a retail outlet? None of the above. It's a busy commuter train, but not as you know it.

LONDON, UNITED KINGDOM -- (Marketwired) -- 09/15/17 -- Cisco (NASDAQ: CSCO), ScotRail, CGI, Network Rail Telecoms and Wittos today announced their collaboration on an Innovate UK and RSSB funded proof of concept to enable super-fast Wi-Fi on trains (Project SWIFT).

The project will see ScotRail trialling the fastest in-train Wi-Fi service in the world, allowing users to experience Internet speeds on the go of up to 300 Mbps. Currently, those travelling by train between Scotland's two biggest cities can access less than 10% of that capability; the difference between streaming a music service with interrupted coverage, and downloading the entire Beatles back catalogue, seamlessly in under two minutes.

With the existing in-train mobile service in the UK, [33% of internet requests on trains fail](#) and with 1.4bn journeys a year, that equates to millions of lost hours of productivity, missed opportunity for online retailers, and potentially dissatisfied passengers. Consistent, high speed connectivity on trains provides a significant opportunity for not only the rail industry, but the UK as a whole.

As the recent [National Infrastructure Commission](#) report outlined, the use of existing 3G/4G networks for train connectivity has been unsuccessful, largely due to number of tunnels, cuttings and regional 3G/4G black-spots in the UK. Project SWIFT provides a viable alternative.

Led by Cisco CREATE, the company's Collaborative Research and Emerging Technologies division, working with government, industry, research institutions and start-ups to accelerate innovation, Project SWIFT will highlight how high-speed in-carriage connectivity will improve the experience for passengers and help train operators provide better, more reliable and profitable services.

Project SWIFT has been initially implemented on a full scale train and test track near Stratford-upon-Avon, and will now see a limited duration roll-out on one of the current fleet of ScotRail trains that operate services between Glasgow and Edinburgh. The project will utilise existing trackside fibre to backhaul data from trackside masts. The masts will use unlicensed Wi-Fi spectrum to connect trains to this fibre, with a lossless session handover between masts as low as 2 milliseconds. Both existing and newly installed masts will be used along the Edinburgh-Glasgow route to ensure that consistent coverage can be trialled along the line, regardless of tunnels and cuttings.

The proof of concept trial will commence later this year, and run until the end of March 2018.

The project goes beyond providing Internet access to passengers, and investigates what becomes possible when you add data and insight to connections:

- **Passengers left standing, while other carriages are empty?** In-train Wi-Fi can be used to provide insight into crowding, enabling the Train Operator to display, at the station or in an app, information on which carriages have spare seats, so all capacity can be best used. Indeed, if a train is very crowded, a passenger might choose to wait for the next one if they know they will get a seat. In the future, this could be tied to Smart Ticketing to offer passengers paid upgrades to first class if there are seats available.
- **Lack of phone signal on the train?** Using the network infrastructure as backhaul, the quality of VoIP or Wi-Fi calling can be greatly improved -- with no dropped calls or redialing -- even in tunnels. With better carriage utilisation, partnered with consistent Internet connectivity, use of collaboration technologies like video conferencing on trains now becomes a truly viable option.
- **Safer, more reliable services.** Project SWIFT also has the potential to provide advanced insight for train operators, enabling greater safety, security and maintenance capabilities with access to CCTV and train monitoring in real time. Current CCTV relies on storing footage on the train to be used for investigation after the event, if an incident occurs. With high speed connectivity, those cameras can be networked, with incidents monitored and detected live -- alerting the Train Operator and transport police.
- **Productivity that isn't limited to your day job.** Fast, effective access combined with opt-in location data could enable unique retail opportunities. For instance, a passenger could shop online, pickup up their shopping at their final destination -- or commuters could order shopping on the way to work and collect it at their home station on return.

Scot Gardner, Chief Executive, Cisco UK & Ireland commented "Project SWIFT embodies the art of the possible. If the UK is to truly benefit from what digital technologies have to offer, then connectivity has to be a given -- even when travelling at 140mph." He added "If only a fraction of the time that we spend travelling is made more productive, the potential for commuters, the train companies and the UK as a whole is immense."

In a capacity that will see ScotRail prove this concept on their network for the wider benefit of the rail industry, **Rob Shorthouse, ScotRail Alliance Communications Director** said: "We are delighted to be a part of this project. Our customers consistently tell us that one of the things that they expect on their journey is fast, reliable Wi-Fi. This pilot scheme, which we are undertaking on behalf of the entire rail industry, will allow us to fully understand how we take our current on-train WiFi to the next level. We are really excited to be involved."

Matthew Grisoni, Vice President - Oil, Gas and Consumer Services, CGI "CGI is really pleased to

working on this important digital connectivity activity, which has the potential to be adopted across the UK's extensive train network. Working closely with all the consortium partners in this pilot deployment demonstrates our commitment to working with the best people, expertise and innovation in order to improve the world for consumers through technology. SWIFT has applications within and beyond the transport world, and we look forward to expanding this important pilot."

Amy Lai, Founder and CEO, Wittos "Project SWIFT enables us to rethink the role that connectivity plays in rail passenger experiences. Focusing on what the customer wants is key. Our Connected Intelligence analytics platform identifies the small data moments of how connectivity is being used. This empowers train operators to actively shape the demand for more relevant connected services. Excitingly, we believe a new ecosystem of data-driven applications will emerge through the Project SWIFT Open Innovation Challenge call for destination marketing and disruption management."

"Innovate UK is delighted by the progress of this collaboration, delivering real benefits to the travelling public and offering significant opportunities for smaller UK businesses to work with Cisco, a world leader in information technology. This project has brought together a unique combination of skills and technology to deliver what promises to be a highly successful demonstration between Edinburgh and Glasgow, and offering significant potential for other routes in the UK and worldwide." **Kelvin Davies, Innovation Lead, Connected Transport, Innovate UK.**

As part of Project SWIFT, start-ups and SME's have been invited to participate in an open innovation challenge that utilizes live data from the project. Participants will build applications to enable continuous innovation for passengers, and train operators. For more information on the challenge, visit <https://www.1to1.link/>.

Today's announcement is the latest example of Cisco's commitment to support digitisation in the UK. Cisco's digitisation strategy is a long-term partnership with government, industry and academia to deliver real outcomes faster and more effectively for the country. It is part of Cisco's global commitment to accelerating digitisation of countries around the world. For further examples, please visit the [Cisco Newsroom](#).

About Cisco

Cisco (NASDAQ: CSCO) is the worldwide leader in IT that helps companies seize the opportunities of tomorrow by proving that amazing things can happen when you connect the previously unconnected. For ongoing news, please go to <http://thenetwork.cisco.com>.

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About ScotRail

Abellio ScotRail started operating on 1 April 2015. ScotRail provides passenger train services throughout Scotland with intercity, regional and suburban rail services across the Scottish national rail network. Abellio ScotRail is responsible for 4,850 employees, carrying 227,000 passengers on 2,000 services per day with 794 train vehicles.

About CGI

Founded in 1976, CGI Group Inc. is the fifth largest independent information technology and business process services firm in the world. Approximately 70,000 professionals serve thousands of global clients from offices and delivery centers across the Americas, Europe and Asia Pacific, leveraging a

comprehensive portfolio of services, including high-end business and IT consulting, systems integration, application development and maintenance and infrastructure management, as well as 150 IP-based services and solutions. With annual revenue in excess of C\$10 billion and an order backlog exceeding C\$20 billion, CGI shares are listed on the TSX (GIB.A) and the NYSE (GIB). Website: www.cgi.com

About Wittos

Wittos is focused on empowering the local space to develop an understanding of the actual behaviours of connected consumers based on data, not guess work or assumptions, from the local space's wireless network. Our next-gen data-driven approach blends live behavioural analytics with an open ecosystem who, in turn, generate a virtuous circle of real-time end-user value. This means that WiFi utilisation is properly forecasted, importantly the demand for connectivity can be shaped and sustainable monetisation opportunities can start to flow. Website: <http://www.wittos.com>

Innovate UK

Innovate UK is the UK's innovation agency. We work with people, companies and partner organisations to find and drive the science and technology innovations that will grow the UK economy. We're an organisation of around 300 staff, drawn mainly from business. We work across the UK, with a head office in Swindon. With a strong business focus, we drive growth by working with companies to de-risk, enable and support innovation. To do this, we work to:

- determine which science and technology developments will drive future economic growth
- meet UK innovators with great ideas in the fields we're focused on
- fund the strongest opportunities
- connect innovators with the right partners they need to succeed
- help our innovators launch, build and grow successful businesses

For more information see <https://www.gov.uk/government/organisations/innovate-uk>

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