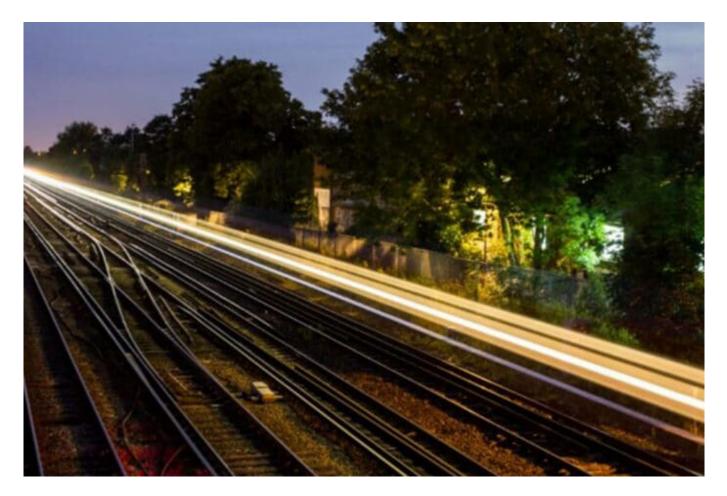# evo-rail to deliver rail-5G to UK railways

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evo-rail, part of FirstGroup, is launching rail-5G, the global first multi-gigabit communications service specifically designed for the railway. rail-5G powers the on-train Wi-Fi system with over a gigabit of internet data, which will allow passengers to experience unprecedented levels of connectivity, similar to what they would enjoy at home or work. The innovative new system will also offer continuous connection for passengers through tunnels.

Current bandwidth restrictions mean that customers are restricted to using onboard Wi-Fi for simple tasks such as email or web browsing. rail-5G will allow train operators to meet the ever-growing demand for connectivity on the railways by enabling passengers to enjoy activities like 3D gaming, videoconferencing, live sports, streaming and superfast downloads from any device when travelling by train.

rail-5G requires a fraction of the power of mobile 4G or 5G but communicates data up to 100 times faster than mobile 4G. It will not only deliver a step change to the customer experience but also has the potential to offer an affordable and safe trackside and train system for key operational improvements.

Simon Holmes, FirstGroup's Head of Engineering Digital Communications and Managing Director of evo-rail, said: "Unlike mobile systems, rail-5G benefits from being designed by railway experts specifically for the railways. The increased bandwidth will, for the first time, provide a significantly improved customer

experience for passengers who will now be able to use high-definition video streaming, access office applications, participate in 3D gaming and browse at high speeds, just as they would at home – even when their train is in a tunnel."

Developed over the last five years and tested on several operational tracks, rail-5G underwent a large-scale pilot on the Isle of Wight's Island Line. This has proven that the rail-5G solution can consistently deliver over one gigabit per second (Gbps) throughput to a moving train, whereas currently passengers share a fraction of this capacity.

rail-5G is designed to work on the existing infrastructure with future deployments being self-powered through solar and wind energy, with the ambition of becoming the world's first carbon neutral communications system by 2025.

With the support of Network Rail, evo-rail will roll out rail-5G along 70km of the South Western Railway network, starting in 2021. Later in the year, evo-rail hopes to also add a major intercity network along with several European ventures.

Watch this video at www.evo-rail.com or use the link, rail-5G, to learn more about how the rail-5Gsolution from evo-rail works.

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