CGI's 5G Private Network

CGI is building a new showcase in partnership with Nokia to demonstrate how 5G private networks can transform business operations.

5G Private Network Showcase

Our 5G Private Network showcase will demonstrate specific use cases that deliver value across industry segments. We are working with Nokia to deliver a 5G Standalone (SA) private network capability in our Fenchurch Street office using n77 spectrum, enabling us to demonstrate some of the 5G features that are not yet available on public networks.

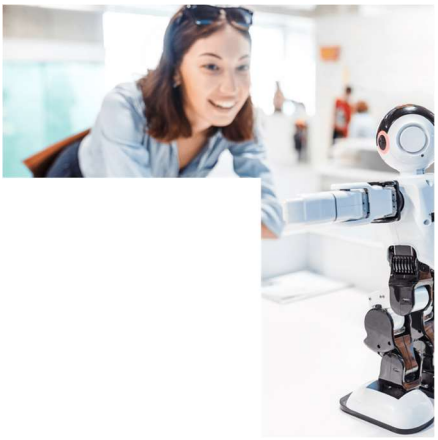
Public 5G networks (NSA) are now widely deployed in the UK, but they do not yet support features like low latency and privacy, in addition to the higher bandwidths available with 5G. Our 5G Standalone (SA) network enables us to showcase 5G features as they are standardised and built into vendor solutions, enabling you to develop business cases with confidence that they will work in a private network. We have developed some example use cases that we can apply to multiple industry sectors, so you will see the business value, not just the technology. We want to work with our clients to bring the technology to life and deliver value the best possible value.

The **5G Standalone Private Network** solution is built using **Nokia's Digital Automation Cloud (DAC)** products, where the Nokia DAC Edge Server provides a core network and radio interfaces, all connected back to the Nokia Cloud for ease of configuration and management. This is commercially available now, and is already being deployed in commercial applications around the world.

Uniquely, we bring together the 5G Private Network capability with CGI's data analytics tools, enabling us to demonstrate complete business scenarios. We can combine static data feeds from external sources including weather, traffic conditions etc. with up to the second data from 5G connected sensors, enabling us to build a digital twin model of the real world. This lets you see how new ways of working can lead to positive business impacts.

Demonstrating the value of Private 5G

5G supports massive connectivity – 5G will enable an increasingly higher volume of devices to connect to a network than is currently possible with 4G. We will be able to demonstrate weather sensors and door monitors, enabling simple signals and more complex weather data to be gathered and used in subsequent use cases.



CGI in Communications

CGI has provided services to the telecoms industry for over 30 years.

- CGI serves 6 of the top 10 Communication Service Providers globally
- We have over 5,000 industry experts around the world helping clients drive profitable growth
- We have partnered with each of our top 10 clients for average of 26 years

Our expertise includes:

- Business consulting
- System integration
- Digital transformation
- Business process outsourcing

We specialise in:

- IoT solutions
- Robotic Process Automation
- Satellite communications
- 5G – private networks
- 5G – exploitation
- Cyber Security

Low latency for robotic control – We will demonstrate how low-latency connectivity can be used to control a robot remotely, while showcasing real time video transmission over the high bandwidths available with 5G. By using this as the core of multiple industry specific use cases, we will be able to show how real business value can be delivered.

Exploiting high bandwidth and low latency to enable new Machine Vision use cases – We will demonstrate agriculture use cases, where we exploit the low latency and high bandwidth aspects of 5G to enable remote video inspection of crops. This can be used to determine when fruit is ripe and support remote robotic fruit picking. The low latency 5G connection enables a robot to be controlled to a precise location, using real-time video feeds, and then assess fruit condition and make a decision on whether to pick or not. The aggregated data from many individual fruit can be used to assess the best time to go back for a further fruit picking session.

Exploiting high bandwidth and low latency to deliver Virtual Reality VR requires massive bandwidth and very low latency, which the private 5G network delivers. We will demonstrate a scenario that places the VR wearer in a complex maintenance scenario, enabling the user to inspect multiple data layers in a VR environment, understanding the challenges that will be encountered and supporting a technician on-site.

Why should you visit the lab?

We are focussing on some of the most challenging industry verticals, demonstrating how the technology can lead to business change resulting in cost savings and increased flexibility. We want the demonstrations to help you think through the specific ways that 5G private networking can enable new business efficiency opportunities, like:

- **Health and care** - from highly accurate real-time asset tracking, to AR/VR enhanced remote robotic surgery, 5G mobile private networks can bring huge operational efficiencies, drive down OPEX, reduce waiting times and relieve bottlenecks.
- **Energy and mining** – enabling remote maintenance applications including Robotics and VR
- **Manufacturing** – where robotic processes can be made more flexible with 5G connectivity, and automation can dramatically improve production efficiency and quality
- **Transport and logistics** – where integrated end to end monitoring and data management can reduce waiting times, improve loading times and optimise maintenance and downtime scheduling
- **Local Authorities** – where 5G technology can enable faster response to antisocial behaviour, as well as improving day to day efficiency by optimising multiple business processes from bin emptying, parking optimisation, facilities management to housing conditions.

Find out more: cgi.com/uk/communications/5g-connectivity-networks

"CGI is a leader in IT and business consulting services, so we're delighted to be leveraging our combined expertise to shine a light on the power and potential of 5G private wireless. This is a new and exciting partnership for both organisations and is built on years of industry knowledge and experience. It is a significant milestone as we look to turn the 5G private wireless potential into a reality for the UK market."

Phil Siveter, CEO for UK&I at Nokia

About CGI

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world.

We are insights-driven and outcomes-based to help accelerate returns on your investments. Across hundreds of locations worldwide, we provide comprehensive, scalable and sustainable IT and business consulting services that are informed globally and delivered locally.

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Visit cgi.com/uk/communications
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