



Support for 4G & 5G Private Cellular Network licence application to Ofcom

Service Definition

A G-Cloud 14 service from Real Wireless

Real Wireless Ltd
PO Box 2218
Pulborough
West Sussex
RH20 4XB
United Kingdom

t +44 207 117 8514
e info@realwireless.com
w real-wireless.com
t [@real_wireless](https://twitter.com/real_wireless)

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About Real Wireless

Real Wireless is the world's leading independent wireless advisory firm. Its network of experts includes engineers, physicists, economists, security advisors, business strategists and deployment specialists. Real Wireless clients benefit from a comprehensive portfolio of specialists and custom tools that analyse radio network performance, techno-economic impact and the business model implications of wireless systems. With this unmatched resource Real Wireless is able to advise the industry and all user groups, spanning businesses to governments, mobile operators, regulators and technology companies on every aspect of wireless technology.

Real Wireless has applied this unique range of technical and strategic expertise to some of the UK's biggest wireless infrastructure projects – from major stadium connectivity to shopping malls to transport systems — and has worked with operators, vendors and regulators on all forms of wireless connectivity. It has also advised governments and the European Union on the technical, social and economic implications of communications policy.

Real Wireless experts help clients to understand, select and deploy technology according to need; we deliver truly independent advice as we are not affiliated with any association, company or proprietary standard. That is why, with 5G now being deployed, Real Wireless is best placed to guide and advise businesses on the choices and opportunities next generation communications systems will bring.

For details contact us at:

e info@realwireless.com

w www.real-wireless.com

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Abbreviation	Definition
2G	Second-generation mobile telephone system (or GSM)
3G	Third-generation mobile telephone system (or UMTS)
4G	Fourth-generation mobile telephone system (or LTE)
5G	Fifth-generation mobile telephone system
MNOs	Mobile Network Operators
RND	Radio Network Dimensioning

1 About the Service

The Real Wireless **Support for 4G & 5G Private Cellular Networks Licence Applications** service provides help, support and guidance for organisations wanting to gain access to spectrum being licensed by Ofcom for private network use.

Ofcom is allowing private networks to operate in several bands - 1800 MHz, 2300 MHz, 3.8-4.2 GHz and 24.25-26.5 GHz. The bands have different allowed use cases including indoor only, outdoor, different transmit powers, different application processes, different record keeping requirements and different prices.

An increasing number of users find that deploying their own private 4G or 5G network provide several benefits when compared to using public mobile networks – these benefits could include:

- Data privacy – your data does not leave your site/network
- Better control of deployment and technical parameters
- Better coverage and improved service levels
- Lower costs

1.1 Approach

As part of this service Real Wireless can provide a number of services related to the use of private cellular networks including:

- A high-level public versus private network comparison showing typical performance, cost and privacy aspects
- Comparison of shared access to local access licencing – implications for the client
- Which spectrum band to choose and the associated costs, licence duration, limitations on use, technical conditions, locations not available, application process, potential interference risks with mitigation options and records to be kept
- Identification of the most appropriate licence and spectrum to apply for based on use cases and commercial factors
- Responding to technical responses from Ofcom regarding technical challenges to your request

1.2 Deliverables

1.2.1 Meeting your requirements

Depending on the scope of the work that you require we will set out a programme to deliver those parts of the application process required. We will advise you of the expected timeframe for the parts that we control. We will work closely to your team to ensure there is clarity throughout the application process.

1.2.2 Project management

Real Wireless controls all assignments in the same structured, robust manner. Project delivery is in line with our ISO 9001:2015 certification which ensures consistency throughout our process from specification of requirements to ultimate delivery on projects of any size and scope.

We will allocate a Project Manager who will be responsible for project deliverables and managing the project (including kick-off, progress meetings and final outcomes along with tracking project risks, issues, actions and decisions). The Project Manager will be the primary day-to-day point of contact for the Buyer and will monitor satisfaction with our delivery, conduct and outputs.

1.2.3 Project timescales

Following receipt of your instruction to proceed with a project a kick-off meeting will be arranged to review the requirements and scope of the project in full. A project is typically delivered within six to twelve weeks from the kick-off meeting depending on the scope.

2 About Real Wireless

Real Wireless is an expert on radio and wireless technologies including: public and private mobile, networks, Wi-Fi, broadcast, satellite, radio propagation, business radio and more. Our total focus on the sector enables us to provide the practical and strategic advice required by our clients.

2.1 Our people

Our network of experts includes more than 40 engineers, physicists, economists, security advisors, business strategists and deployment specialists. Within our network we have senior-level and academic expertise and a wealth of experience in technical and commercial domains, from operator, regulator, vendor and systems integrator. Bridging the gap between the mobile communications industry and users means we can help the industry better understand and meet the needs of its customers and help users get the best from their mobile technologies to benefit business.

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