

Research Dossier: O2 UK

Country

United Kingdom

Company Name

Telefónica UK Limited

Ownership Type

Subsidiary

Ownership/Controlling Entity

Telefónica

Website

<https://www.o2.co.uk/>

MNC

O2



Company Overview

Telefonica UK Limited, trading as O2, is a national telecommunications provider operating in the United Kingdom. O2 was formed in 1985 as Cellnet, a joint venture between BT Group and Securicor which became wholly owned by BT Group in 2000 who the new mobile network operator O2 in 2002. O2 was wholly acquired by Spanish Telefonica Group in 2006, becoming a subsidiary known as Telefonica UK Limited.

The company began providing 3G UMTS services over B1 (2100 MHz) between February 2005 and September 2007 when the network rollout was deemed completed. A B8 (900 MHz) carrier was introduced in March 2011 to improve network coverage. Data services were upgraded to HSPA+ during 2012 and DC-HSPA+ in 2013.

4G LTE services were first launched in August 2013 over the B20 (800 MHz) band. By early 2016 O2 had refarmed 5 MHz of its 2G spectrum to implement B3 (1800 MHz) and 10 MHz of its 3G 2100 spectrum to provide an additional B1 (2100 MHz) LTE carrier. The new bands were immediately used to implement LTE-Advanced using 2C CA. 4X4 MIMO has been implemented since April 2018.

After securing 40 MHz of 2.3 GHz spectrum in early 2018, O2 launched two 20 MHz B40 (2300 MHz) LTE carriers. There are unconfirmed reports of 8T8R MIMO being implemented.

O2 UK 5G

At an April 2018 Ofcom auction, O2 secured a total of 80 MHz of 5G-suitable TDD spectrum in the 2.3 and 3.5 GHz ranges (40 MHz each). In February 2019 O2 confirmed it would begin construction of its 5G network infrastructure, beginning in the cities of Belfast, Cardiff, Edinburgh and London, with a switch-on to take place in 2020. O2 announced that it would launch a 5G trial network at its Millbrook Proving Ground in June 2019 using n40 (3400 MHz) and n78 (3500 MHz) carriers.

▼ 3G UMTS Network Information

Details on UMTS network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Launch Date	2005-02	Status	Active
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UMTS Band	Packet Data	Status
B1 (2100 MHz)	DC-HSPA+	Shut Down Announced

▼ 4G LTE Network Information

Details on LTE network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Evolution	LTE Advanced (LTE-A)	Status	Active [Launched 2013-08]
Max. MIMO	4x4 MIMO	Max. Modulation	64QAM
Carrier Aggregation	CA_3A-20A (B3+B20)	Features	VoLTE
LTE Band	Channel Width	Status	
B1 (2100 MHz)	10 MHz	Active	

▼ 5G NR Network Information

Details on 5G NR network deployments are shown below. Data are often incomplete due to commercial nature. Consult dossier text for further details.

Type	NR (Standard)	Status	Trialling
Max. MIMO	Massive MIMO	Max. Modulation	256QAM
Carrier Aggregation	-	Features	-
NR Band	Channel Width	Status	
n40 (2300 MHz)	40 MHz	Trialling	
n78 (3500 MHz)	40 MHz	Trialling	

▼ IoT Network - NB-IoT (LTE Cat-NB1)

Technology	NB-IoT (LTE Cat-NB1)	Status	Trialling
Band	-	Launch Date	-

▼ IoT Network - eMTC (LTE Cat-M1)

Technology	eMTC (LTE Cat-M1)	Status	Trialling
Band	-	Launch Date	-

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