About this data: Mobile coverage, local and unitary authority area

To create our <u>Connected Nations Report</u> (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2020) Ofcom collected and analysed data from all the mobile network operators. This file contains mobile network coverage information from the operators. Further information can be found in the <u>Connected Nations Methodology</u> (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2020/methodology).

The coverage availability was collected as a snapshot in January 2021.

Due to variations in mobile performance over time, the file should not be regarded as a definitive and fixed view of the UK's mobile infrastructure. However, the information provided in this file may be useful in identifying variations in mobile performance by geography.

If you have any questions or feedback on the data please contact us at open.data@ofcom.org.uk.

We are providing this data on an open basis via the <u>Open Government Licence</u> (https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/) which gives users various freedoms about how they choose to use the data, subject to conditions.

The files are provided as a Comma Separated Values file, with double quote (") text delimiters where applicable.

Revision Note

Coverage availability

File name: 202101_mobile_laua_r01.csv

Total records in file: 1 header row, 379 data rows

File size on disk: 236 KB (241,664 bytes)

Column headers and what they represent:

Field	Label	Note
laua	Lowertier authority	Local and Unitary Authority Codes, such as
		E07000114
laua_name	Lowertier authority name	Local and Unitary Authority Names
pixel_count	Number of 100sq.m. pixels in location	
prem_count	Number of premises in location	Based on the Connected Nations all premise base definition
ab_rd_count	Number of 100sq.m. pixels in location containing A or B road features	
mway_count	Number of 100sq.m. pixels in location containing Motorway features	
mway_ard_count	Number of 100sq.m. pixels in location containing Motorway or A road features	
2G_prem_out_0	2G services, premises (outdoor): no reliable signal (%)	Threshold:-81dBm
2G_prem_out_1	2G services, premises (outdoor): signal from 1 operator (%)	Threshold:-81dBm
2G_prem_out_2	2G services, premises (outdoor): signal from 2 operators (%)	Threshold:-81dBm

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2G_prem_out_3	2G services, premises (outdoor): Threshold:-81dBm signal from all operators (%)		
2G_prem_in_0	2G services, premises (indoor): no reliable signal (%)	Threshold:-71dBm	
2G_prem_in_1	2G services, premises (indoor): signal from 1 operator (%)	Threshold:-71dBm	
2G_prem_in_2	2G services, premises (indoor): signal from 2 operators (%)	Threshold:-71dBm	
2G_prem_in_3	2G services, premises (indoor): signal from all operators (%)	Threshold:-71dBm	
2G_geo_out_0	2G services, geographic (outdoor): no reliable signal (%)	Threshold:-81dBm	
2G_geo_out_1	2G services, geographic (outdoor): signal from 1 operator (%)	Threshold:-81dBm	
2G_geo_out_2	2G services, geographic (outdoor): signal from 2 operators (%)	Threshold:-81dBm	
2G_geo_out_3	2G services, geographic (outdoor): signal from all operators (%)	Threshold:-81dBm	
2G_abrd_in_0	2G services, roads: no reliable signal (%)	Threshold:-71dBm	
2G_abrd_in_1	2G services, roads: signal from 1 operator (%)	Threshold:-71dBm	
2G_abrd_in_2	2G services, roads: signal from 2 operators (%)	Threshold:-71dBm	
2G_abrd_in_3	2G services, roads: signal from all operators (%)	Threshold:-71dBm	
2G_mway_in_0	2G services, motorways: no reliable signal (%)	Threshold:-71dBm	
2G_mway_in_1	2G services, motorways: signal from 1 operator (%)	Threshold:-71dBm	
2G_mway_in_2	2G services, motorways: signal from 2 operators (%)	Threshold:-71dBm	

2G_mway_in_3	2G services, motorways: signal from all operators (%) Threshold:-71dBm		
2G_mway_ard_in_0	2G services, motorways and A-roads:	s: Threshold:-71dBm	
	no reliable signal (%)	meshela. / Labin	
2G_mway_ard_in_1	2G services, motorways and A-roads: signal from 1 operator (%)	Threshold:-71dBm	
2G_mway_ard_in_2	2G services, motorways and A-roads: signal from 2 operators (%)	Threshold:-71dBm	
2G_mway_ard_in_3	2G services, motorways and A-roads: signal from all operators (%)	Threshold:-71dBm	
3G_prem_out_0	3G services, premises (outdoor): no reliable signal (%)	Threshold:-100dBm	
3G_prem_out_1	3G services, premises (outdoor): signal from 1 operator (%)	Threshold:-100dBm	
3G_prem_out_2	3G services, premises (outdoor): signal from 2 operators (%)	Threshold:-100dBm	
3G_prem_out_3	3G services, premises (outdoor): signal from 3 operators (%)	Threshold:-100dBm	
3G_prem_out_4	3G services, premises (outdoor): signal from all operators (%)	Threshold:-100dBm	
3G_prem_in_0	3G services, premises (indoor): no reliable signal (%)	Threshold:-90dBm	
3G_prem_in_1	3G services, premises (indoor): signal from 1 operator (%)	Threshold:-90dBm	
3G_prem_in_2	3G services, premises (indoor): signal from 2 operators (%)	Threshold:-90dBm	
3G_prem_in_3	3G services, premises (indoor): signal from 3 operators (%)	Threshold:-90dBm	
3G_prem_in_4	3G services, premises (indoor): signal from all operators (%)	Threshold:-90dBm	
3G_geo_out_0	3G services, geographic (outdoor): no reliable signal (%)	Threshold:-100dBm	

3G_geo_out_1	3G services, geographic (outdoor): Threshold:-100dBm signal from 1 operator (%)		
3G_geo_out_2	3G services, geographic (outdoor): signal from 2 operators (%)	Threshold:-100dBm	
3G_geo_out_3	3G services, geographic (outdoor): signal from 3 operators (%)	Threshold:-100dBm	
3G_geo_out_4	3G services, geographic (outdoor): signal from all operators (%)	Threshold:-100dBm	
3G_abrd_in_0	3G services, roads: no reliable signal (%)	Threshold:-90dBm	
3G_abrd_in_1	3G services, roads: signal from 1 operator (%)	Threshold:-90dBm	
3G_abrd_in_2	3G services, roads: signal from 2 operators (%)	Threshold:-90dBm	
3G_abrd_in_3	3G services, roads: signal from 3 operators (%)	Threshold:-90dBm	
3G_abrd_in_4	3G services, roads: signal from all operators (%)	Threshold:-90dBm	
3G_mway_in_0	3G services, motorways: no reliable signal (%)	Threshold:-90dBm	
3G_mway_in_1	3G services, motorways: signal from 1 operator (%)	Threshold:-90dBm	
3G_mway_in_2	3G services, motorways: signal from 2 operators (%)	Threshold:-90dBm	
3G_mway_in_3	3G services, motorways: signal from 3 operators (%)	Threshold:-90dBm	
3G_mway_in_4	3G services, motorways: signal from all operators (%)	Threshold:-90dBm	
3G_mway_ard_in_0	3G services, motorways and A-roads: no reliable signal (%)	Threshold:-90dBm	
3G_mway_ard_in_1	3G services, motorways and A-roads: signal from 1 operator (%)	Threshold:-90dBm	

3G_mway_ard_in_2	3G services, motorways and A-roads: Threshold:-90dBm signal from 2 operators (%)		
3G_mway_ard_in_3	3G services, motorways and A-roads:	Threshold:-90dBm	
	signal from 3 operators (%)	Timesinolar soupin.	
3G_mway_ard_in_4	3G services, motorways and A-roads: signal from all operators (%)	Threshold:-90dBm	
4G_prem_out_0	4G services, premises (outdoor): no reliable signal (%)	Threshold:-105dBm	
4G_prem_out_1	4G services, premises (outdoor): signal from 1 operator (%)	Threshold:-105dBm	
4G_prem_out_2	4G services, premises (outdoor): signal from 2 operators (%)	Threshold:-105dBm	
4G_prem_out_3	4G services, premises (outdoor): signal from 3 operators (%)	Threshold:-105dBm	
4G_prem_out_4	4G services, premises (outdoor): signal from all operators (%)	Threshold:-105dBm	
4G_prem_in_0	4G services, geographic (indoor): no reliable signal (%)	Threshold:-95dBm	
4G_prem_in_1	4G services, geographic (indoor): signal from 1 operator (%)	Threshold:-95dBm	
4G_prem_in_2	4G services, geographic (indoor): signal from 2 operators (%)	Threshold:-95dBm	
4G_prem_in_3	4G services, geographic (indoor): signal from 3 operators (%)	Threshold:-95dBm	
4G_prem_in_4	4G services, geographic (indoor): signal from all operators (%)	Threshold:-95dBm	
4G_geo_out_0	4G services, geographic (outdoor): no reliable signal (%)	Threshold:-105dBm	
4G_geo_out_1	4G services, geographic (outdoor): signal from 1 operator (%)	Threshold:-105dBm	
4G_geo_out_2	4G services, geographic (outdoor): signal from 2 operators (%)	Threshold:-105dBm	

4G_geo_out_3 4G_services, geographic (outdoor): signal from 3 operators (%) 4G_geo_out_4 4G_services, geographic (outdoor): signal from all operators (%) 4G_abrd_in_0 4G services, roads: no reliable signal (%) 4G_abrd_in_1 4G services, roads: signal from 1 operator (%) 4G_abrd_in_2 4G services, roads: signal from 2 operators (%) 4G_abrd_in_3 4G services, roads: signal from 3 operators (%) 4G_abrd_in_4 4G services, roads: signal from 3 operators (%) 4G_abrd_in_4 4G services, roads: signal from all operators (%) 4G_mway_in_0 4G services, roads: signal from all operators (%) 4G_mway_in_1 4G services, motorways: no reliable signal (%) 4G_mway_in_2 4G services, motorways: signal from 1 operator (%) 4G_mway_in_2 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: signal from 3 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: signal from 3 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: signal from 3 operators (%)			
signal from all operators (%) 4G_abrd_in_0 4G services, roads: no reliable signal (%) 4G_abrd_in_1 4G services, roads: signal from 1 operator (%) 4G_abrd_in_2 4G services, roads: signal from 2 operators (%) 4G_abrd_in_3 4G services, roads: signal from 3 operators (%) 4G_abrd_in_4 4G services, roads: signal from all operators (%) 4G_mway_in_0 4G services, roads: signal from all operators (%) 4G_mway_in_1 4G services, motorways: no reliable signal (%) 4G_mway_in_2 4G services, motorways: signal from 1 operator (%) 4G_mway_in_3 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 2 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_ard_in_0 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_1 4G services, motorways: signal from 5 operators (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: Threshold:-95dBm or eliable signal (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm signal from 2 operators (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm signal from 2 operators (%)	4G_geo_out_3	, ,	
(%) 4G_abrd_in_1 4G services, roads: signal from 1 operator (%) 4G_abrd_in_2 4G services, roads: signal from 2 operators (%) 4G_abrd_in_3 4G services, roads: signal from 3 operators (%) 4G_abrd_in_4 4G services, roads: signal from all operators (%) 4G_mway_in_0 4G services, motorways: no reliable signal (%) 4G_mway_in_2 4G services, motorways: signal from 1 operator (%) 4G_mway_in_3 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_ard_in_0 4G services, motorways: signal from 5 operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold: 95dBm signal from 1 operators (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold: 95dBm signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold: 95dBm signal from 2 operators (%)	4G_geo_out_4		Threshold:-105dBm
operator (%) 4G_abrd_in_2	4G_abrd_in_0		Threshold:-95dBm
operators (%) 4G_abrd_in_3 4G services, roads: signal from 3 operators (%) 4G_abrd_in_4 4G services, roads: signal from all operators (%) 4G_mway_in_0 4G services, motorways: no reliable signal (%) 4G_mway_in_1 4G services, motorways: signal from 1 operator (%) 4G_mway_in_2 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_4 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: Threshold:-95dBm 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm Threshold:-95dBm Threshold:-95dBm Threshold:-95dBm	4G_abrd_in_1		Threshold:-95dBm
operators (%) 4G_abrd_in_4 4G services, roads: signal from all operators (%) 4G_mway_in_0 4G services, motorways: no reliable signal (%) 4G_mway_in_1 4G services, motorways: signal from 1 operator (%) 4G_mway_in_2 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 2 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_ard_in_0 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm signal from 2 operators (%)	4G_abrd_in_2	_	Threshold:-95dBm
operators (%) 4G_mway_in_0 4G services, motorways: no reliable signal (%) 4G_mway_in_1 4G services, motorways: signal from 1 operator (%) 4G_mway_in_2 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_ard_in_0 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: Signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm 5G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm 6G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_abrd_in_3		Threshold:-95dBm
signal (%) 4G_mway_in_1 4G services, motorways: signal from 1 operator (%) 4G_mway_in_2 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from 3 operators (%) 4G_mway_ard_in_0 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm Threshold:-95dBm Threshold:-95dBm	4G_abrd_in_4	· · ·	Threshold:-95dBm
1 operator (%) 4G_mway_in_2 4G services, motorways: signal from 2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm 4G_mway_ard_in_2 4G services, motorways and A-roads: signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_mway_in_0		Threshold:-95dBm
2 operators (%) 4G_mway_in_3 4G services, motorways: signal from 3 operators (%) 4G_mway_in_4 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm 4G_mway_ard_in_2 4G services, motorways and A-roads: signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_mway_in_1	•	Threshold:-95dBm
3 operators (%) 4G_mway_in_4 4G services, motorways: signal from all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: Threshold:-95dBm signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_mway_in_2		Threshold:-95dBm
all operators (%) 4G_mway_ard_in_0 4G services, motorways and A-roads: no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_mway_in_3		Threshold:-95dBm
no reliable signal (%) 4G_mway_ard_in_1 4G services, motorways and A-roads: Signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_mway_in_4	, ,	Threshold:-95dBm
signal from 1 operator (%) 4G_mway_ard_in_2 4G services, motorways and A-roads: Threshold:-95dBm signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_mway_ard_in_0	•	Threshold:-95dBm
signal from 2 operators (%) 4G_mway_ard_in_3 4G services, motorways and A-roads: Threshold:-95dBm	4G_mway_ard_in_1	•	Threshold:-95dBm
	4G_mway_ard_in_2		Threshold:-95dBm
	4G_mway_ard_in_3		Threshold:-95dBm

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4G_mway_ard_in_4	4G services, motorways and A-roads:		
	signal from all operators (%)		
Voice_prem_out_0	Voice services, premises (outdoor):	See below for 2G, 3G, 4G	
	no reliable signal (%)	threshold levels	
Voice_prem_out_1	Voice services, premises (outdoor):	See below for 2G, 3G, 4G	
	signal from 1 operator (%)	threshold levels	
Voice_prem_out_2	Voice services, premises (outdoor):	See below for 2G, 3G, 4G	
	signal from 2 operators (%)	threshold levels	
Voice_prem_out_3	Voice services, premises (outdoor):	See below for 2G, 3G, 4G	
	signal from 3 operators (%)	threshold levels	
Voice_prem_out_4	Voice services, premises (outdoor):	See below for 2G, 3G, 4G	
	signal from all operators (%)	threshold levels	
Voice_prem_in_0	Voice services, geographic (indoor):	See below for 2G, 3G, 4G	
	no reliable signal (%)	threshold levels	
Voice_prem_in_1	Voice services, geographic (indoor):	See below for 2G, 3G, 4G	
токе_р.е	signal from 1 operator (%)	threshold levels	
	Signal Hom I operator (70)	threshold levels	
Voice_prem_in_2	Voice services, geographic (indoor):	See below for 2G, 3G, 4G	
	signal from 2 operators (%)	threshold levels	
Voice_prem_in_3	Voice services, geographic (indoor):	See below for 2G, 3G, 4G	
	signal from 3 operators (%)	threshold levels	
Voice_prem_in_4	Voice services, geographic (indoor):	See below for 2G, 3G, 4G	
	signal from all operators (%)	threshold levels	
Voice_geo_out_0	Voice services, geographic (outdoor):	See below for 2G, 3G, 4G	
Voice_geo_out_o	no reliable signal (%)	threshold levels	
	Tio reliable signal (70)	tineshold levels	
Voice_geo_out_1	Voice services, geographic (outdoor):	See below for 2G, 3G, 4G	
	signal from 1 operator (%)	threshold levels	
Voice_geo_out_2	Voice services, geographic (outdoor):	See below for 2G, 3G, 4G	
VOICE_SEO_OUL_Z	signal from 2 operators (%)	threshold levels	
	signal Holli 2 operators (70)	un estiviu ieveis	
Voice_geo_out_3	Voice services, geographic (outdoor):	See below for 2G, 3G, 4G	
	signal from 3 operators (%)	threshold levels	
Voice goe out 4	Voice convices go agree his facilities and	Soo holourfor 2C 2C 4C	
Voice_geo_out_4	Voice services, geographic (outdoor):	See below for 2G, 3G, 4G threshold levels	
	signal from all operators (%)	un esnoid leveis	
	_1	l .	

		T	
Voice_abrd_in_0	Voice services, roads: no reliable	See below for 2G, 3G, 4G	
	signal (%)	threshold levels	
Voice_abrd_in_1	Voice services, roads: signal from 1	See below for 2G, 3G, 4G	
	operator (%)	threshold levels	
	openion (in)		
Voice_abrd_in_2	Voice services, roads: signal from 2	See below for 2G, 3G, 4G	
	operators (%)	threshold levels	
Voice_abrd_in_3	Voice services, roads: signal from 3	See below for 2G, 3G, 4G	
	operators (%)	threshold levels	
Voice_abrd_in_4	Voice services, roads: signal from all	See below for 2G, 3G, 4G	
V 0.66_ub.ru 1	operators (%)	threshold levels	
	operators (78)	tineshold levels	
Voice_mway_in_0	Voice services, motorways: no	See below for 2G, 3G, 4G	
	reliable signal (%)	threshold levels	
Voice_mway_in_1	Voice services, motorways: signal	See below for 2G, 3G, 4G	
	from 1 operator (%)	threshold levels	
Voice_mway_in_2	Voice services, motorways: signal	See below for 2G, 3G, 4G	
Voice_iiiway_iii_2	from 2 operators (%)	threshold levels	
	TIOTILE OPERATORS (70)	till estiolatevels	
Voice_mway_in_3	Voice services, motorways: signal	See below for 2G, 3G, 4G	
	from 3 operators (%)	threshold levels	
Voice_mway_in_4	Voice services, motorways: signal	See below for 2G, 3G, 4G	
	from all operators (%)	threshold levels	
Voice_mway_ard_in_0	Voice services, motorways and A-	See below for 2G, 3G, 4G	
Voice_iniway_ara_in_o	roads: no reliable signal (%)	threshold levels	
	rodds. Ho reliable signal (78)	till estiolatevels	
Voice_mway_ard_in_1	Voice services, motorways and A-	See below for 2G, 3G, 4G	
	roads: signal from 1 operator (%)	threshold levels	
Voice_mway_ard_in_2	Voice services, motorways and A-	See below for 2G, 3G, 4G	
	roads: signal from 2 operators (%)	threshold levels	
Voice mway ard in 3	Voice services, motorways and A-	See below for 2G, 3G, 4G	
V SICC_IIIWay_ara_III_S	roads: signal from 3 operators (%)	threshold levels	
	Todas. Signal Hollis Operators (70)	an conoid levelo	
Voice_mway_ard_in_4	Voice services, motorways and A-	See below for 2G, 3G, 4G	
	roads: signal from all operators (%)	threshold levels	
Data_prem_out_0	Data services, premises (outdoor):	See below for 3G, 4G	
	no reliable signal (%)	threshold levels	

Data_prem_out_1	Data services, premises (outdoor):	See below for 3G, 4G	
	signal from 1 operator (%)	threshold levels	
Data_prem_out_2	Data services, premises (outdoor):	See below for 3G, 4G	
	signal from 2 operators (%)	threshold levels	
Data_prem_out_3	Data services, premises (outdoor):	See below for 3G, 4G	
	signal from 3 operators (%)	threshold levels	
Data_prem_out_4	Data services, premises (outdoor):	See below for 3G, 4G	
Bata_prem_oat_4	signal from all operators (%)	threshold levels	
	Signar from all operators (70)	till Carloid ic veia	
Data_prem_in_0	Data services, geographic (indoor):	See below for 3G, 4G	
	no reliable signal (%)	threshold levels	
Data_prem_in_1	Data services, geographic (indoor):	See below for 3G, 4G	
	signal from 1 operator (%)	threshold levels	
Data prom in 2	Data convices goographic/indees):	See below for 3G, 4G	
Data_prem_in_2	Data services, geographic (indoor):	,	
	signal from 2 operators (%)	threshold levels	
Data_prem_in_3	Data services, geographic (indoor):	See below for 3G, 4G	
	signal from 3 operators (%)	threshold levels	
Data_prem_in_4	Data services, geographic (indoor):	See below for 3G, 4G	
	signal from all operators (%)	threshold levels	
Data_geo_out_0	Data services, geographic (outdoor):	See below for 3G, 4G	
2444_560_044_0	no reliable signal (%)	threshold levels	
	The remadic signal (70)	threshold levels	
Data_geo_out_1	Data services, geographic (outdoor):	See below for 3G, 4G	
	signal from 1 operator (%)	threshold levels	
Data_geo_out_2	Data services, geographic (outdoor):	See below for 3G, 4G	
	signal from 2 operators (%)	threshold levels	
Data_geo_out_3	Data services, geographic (outdoor):	See below for 3G, 4G	
Data_geo_out_5	signal from 3 operators (%)	threshold levels	
	signariforms operators (70)	tillesiloid leveis	
Data_geo_out_4	Data services, geographic (outdoor):	See below for 3G, 4G	
_ _	signal from all operators (%)	threshold levels	
Data_abrd_in_0	Data services, roads: no reliable	See below for 3G, 4G	
	signal (%)	threshold levels	
Data ahrd in 1	Data convices reads signal from 1	Soo holowfor 2C 4C	
Data_abrd_in_1	Data services, roads: signal from 1	See below for 3G, 4G	
	operator(%)	threshold levels	

Data_abrd_in_2	Data services, roads: signal from 2	See below for 3G, 4G	
	operators (%)	threshold levels	
Data_abrd_in_3	Data services, roads: signal from 3	See below for 3G, 4G	
	operators (%)	threshold levels	
Data_abrd_in_4	Data services, roads: signal from all	See below for 3G, 4G	
	operators (%)	threshold levels	
Data_mway_in_0	Data services, motorways: no	See below for 3G, 4G	
	reliable signal (%)	threshold levels	
Data_mway_in_1	Data services, motorways: signal	See below for 3G, 4G	
	from 1 operator (%)	threshold levels	
Data_mway_in_2	Data services, motorways: signal	See below for 3G, 4G	
	from 2 operators (%)	threshold levels	
Data_mway_in_3	Data services, motorways: signal	See below for 3G, 4G	
	from 3 operators (%)	threshold levels	
Data_mway_in_4	Voice services, motorways: signal	See below for 3G, 4G	
	from all operators (%)	threshold levels	
Data_mway_ard_in_0	Data services, motorways and A-	See below for 3G, 4G	
	roads: no reliable signal (%)	threshold levels	
Data_mway_ard_in_1	Data services, motorways and A-	See below for 3G, 4G	
	roads: signal from 1 operator (%)	threshold levels	
Data_mway_ard_in_2	Data services, motorways and A-	See below for 3G, 4G	
	roads: signal from 2 operators (%)	threshold levels	
Data_mway_ard_in_3	Data services, motorways and A-	See below for 3G, 4G	
	roads: signal from 3 operators (%)	threshold levels	
Data_mway_ard_in_4	Data services, motorways and A-	See below for 3G, 4G	
	roads: signal from all operators (%)	threshold levels	

Signal Thresholds

We use the following signal strength thresholds when estimating coverage:

Service		Metric	Outdoor	Indoor and in-car
2G		RxLev	-81dBm	-71dBm
3G		RSCP CPICH	-100dBm	-90dBm
4G Voice		RSRP	-105dBm	-95dBm
4G Data		RSRP	-115dBm	-105dBm
Voice:	2G	RxLev	-81dBm	-71dBm
	3G	RSCP CPiCH	-100dBm	-90dBm
	4G	RSRP	-105dBm	-95dBm
Data:	3G	RSCP CPiCH	-100dBm	-90dBm
	4G	RSRP	-115dBm	-105dBm