# best in test

For adding something on top in New Zealand and reaching an overall score of 852 dots in mobile network benchmarking survey we proudly award this certificate to

### One New Zealand

Score 852 out of 1000 in Total Score 238 out of 270 in Voice Services Score 395 out of 480 in Data Services Score 219 out of 250 in Crowdsourced Quality

Hakan Ekmen

Kalean Ermen

Global Networks Lead, Comms Industry







## **Measurement Overview**

umlaut tested and measured the performance of its voice and data services on smartphones in comparison to other 5G/LTE mobile radio networks in metropolitan and rural areas of New Zealand.

The audit was done as a performance benchmark performed by umlaut between 30.04.2025 and 19.05.2025 in cities and towns as well as on connection roads.

Dedicated measurements have been executed as drive tests outdoors using a Samsung Galaxy S23+ (5G). All data measurements have been performed in 5G preferred mode. Voice measurements have been done in 5G/5G preferred mode on both sides, while call origin has been alternated.

In addition crowdsourced performance data has been collected and evaluated between CW49 2024 and CW20 2025.

The following pages provide a comparative overview about the performance results observed for the different tested service types.

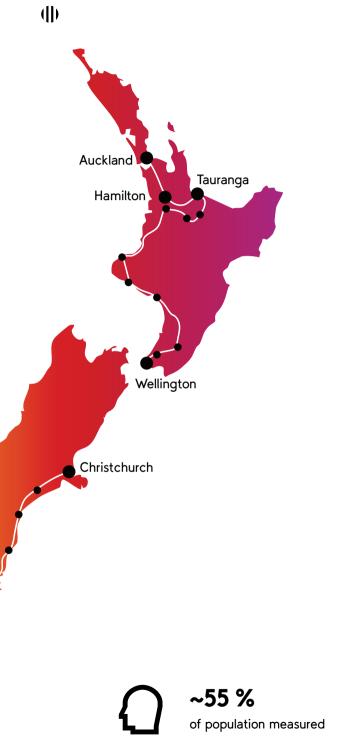
# **Measurement setup**

Drivetest	Voice	Data
Device	Samsung Galaxy S23+ (5G)	Samsung Galaxy S23+ (5G)
Test Cases	Mobile—to—Mobile (M2M) Side1 (5G Preferred) to Side2 (5G Preferred) 105 sec call window 70 sec call duration 15 sec call setup timeout Generic OTT Voice Channel	Data 5G preferred HTTP DL DataStream 7s HTTP UL DataStream 7s HTTPS 10MB DL fixed file transfer HTTPS 5MB UL fixed file transfer Web Browsing – Kepler E-Gaming   Live web pages Video Chat 1 YouTube Full HD video ~ 45s 1 YouTube live stream ~ 45s
Mobility and Route Types	Drive test 100% 61.6% in Cities, 18.4% in Towns and 20.1% on Roads	
Samples	~ 8610	~ 80187
Dates	14 measurement days 30.04.2025 – 19.05.2025	
Crowd Data Assessment	24 weeks CW49 2024 – CW20 2025	

of the 'Population area' covered

# **Testing areas**

Drive route



Crowdsourcing based test area 91.4 % 130,300 km<sup>2</sup> 99.0 % size of tested area

**\$** 

~8,398 km

measuring distance



# Claims











# Methodology

The leader in mobile benchmarking, umlaut, has analyzed the mobile networks of New Zealand with regards to mobile network performance. We measure smartphone voice and data performance based on extensive drivetests – from major metropolitan areas to smaller cities and connection roads.

We objectively define the routes and test methodology and publish the results through certificates or public benchmark reports. In addition crowdsourced performance data has been collected and evaluated.

As the de-facto industry standard, our benchmarking methodology focuses on customer-experienced network quality and covers a wide range of mobile services.

Today, more than 200 mobile networks in more than 120 countries are being evaluated by our unique scoring methodology.

It allows a technical analysis that is unprecedented in its level of detail and enables comparisons between the network performance and capability of each mobile network. Our public benchmarks as well as the certificate benchmarks help network operators to demonstrate how well they are delivering wireless connections to consumers, business users and enterprises and reveals the areas of improvement.

# Score and breakdown

One New Zealand achieved the highest overall score among competitors with 852 dots out of 1000.

#### Total Score 1000 Dots



Overall score considering Voice, Data and Crowdsourcing.

#### **Total score**

		One New Zealand	2degrees	Spark
Voice	max. 270	238	207	215
Cities Drivetest	162	97%	87%	88%
Towns Drivetest	54	99%	88%	92%
Roads Drivetest	54	51%	36%	40%
Data	max. 480	395	363	366
Cities Drivetest	288	92%	86%	84%
Towns Drivetest	96	92%	85%	88%
Roads Drivetest	96	43%	35%	41%
Crowdsourced Quality	max. 250	219	219	206
Broadband Coverage	100	92%	90%	90%
Download Speed	56	81%	82%	75%
Upload Speed	19	85%	93%	81%
Latency	50	83%	82%	71%
Voice	11	93%	97%	95%
Stability	14	95%	94%	93%
Total	1000	852	789	787

9

Shown scores are rounded.

Achieved percentage of the maximum score in each of the different data services.

Data	Service Group	max	One New Zealand	2degrees	Spark
	Web Browsing	50.4	95%	90%	93%
	File Download	64.8	96%	86%	92%
Cities	File Upload	64.8	88%	91%	83%
	YouTube	64.8	92%	80%	80%
	ОТТ	43.2	91%	84%	70%
	Web Browsing	16.8	94%	89%	95%
	File Download	21.6	97%	87%	95%
Towns	File Upload	21.6	85%	84%	81%
	YouTube	21.6	92%	80%	87%
	ОТТ	14.4	89%	87%	83%
	Web Browsing	16.8	47%	37%	46%
	File Download	21.6	49%	36%	50%
Roads	File Upload	21.6	25%	20%	27%
	YouTube	21.6	39%	35%	34%
	ОТТ	14.4	65%	51%	53%

10

Achieved percentage of the maximum score in each of the different crowdsourcing services.

Crowd	Service Group	max	One New Zealand	2degrees	Spark
Crowdsourced	Broadband Coverage	100	92%	90%	90%
	DL Speed	55	81%	82%	75%
	UL Speed	20	85%	93%	81%
Quality	Latency	50	83%	82%	71%
	Voice	10	93%	97%	95%
	Stability	15	95%	94%	93%

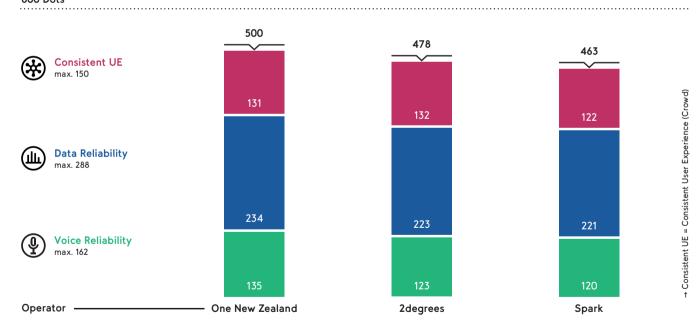




umlaut certificate

# Reliability





12

Reliability score considering Voice Reliability, Data Reliability and Consistent UE.

#### **Total score**

	Service Group	max	One New Zealand	2degrees	Spark
Reliability	Voice Reliability	162	83%	76%	74%
	Data Reliability	288	81%	77%	77%
	Consistent User Experience	150	87%	88%	81%

13

Score achievement in school grades:

outstanding ( $\geq$ 95%), very good ( $\geq$ 85% and <95%), good ( $\geq$ 75% and  $\leq$ 85%), satisfactory ( $\leq$ 65% and <75%), sufficient ( $\leq$ 55% and <65%).

#### Voice KPI overview

Achieved values of all networks under test in each of the relevant Voice Key Performance Indicators (KPIs) for the geographical categories "Cities", "Towns" and "Roads".

Voice	Service Group	Unit	One New Zealand	2degrees	Spark
	Qualifier	[%]	99.8	99.3	99.0
Cities	Call Setup Time (P90)	[s]	1.3	3.2	2.8
	Speech Quality (P10)	[MOS-LQO]	4.5	3.6	4.2
	Qualifier	[%]	100.0	99.4	99.6
Towns	Call Setup Time (P90)	[s]	1.4	3.2	3.0
	Speech Quality (P10)	[MOS-LQO]	4.5	3.7	4.1
Roads	Qualifier	[%]	89.5	83.6	86.7
	Call Setup Time (P90)	[s]	2.9	3.5	3.2
	Speech Quality (P10)	[MOS-LQO]	4.2	3.4	3.9

14

#### Data Services KPI overview

Achieved values of all networks under test in each of the relevant Data Key Performance Indicators (KPIs) for the geographical category "Cities".

Data Cities	KPI Name	Unit	One New Zealand	2degrees	Spark
HTTP Web Page DL	Qualifier	[%]	99.6	99.4	99.6
Smartphone	Overall Session Time	[s]	1.5	1.9	1.7
	Qualifier	[%]	99.8	99.9	99.8
HTTP 10MB DL	Overall Session Time	[s]	1.1	2.9	1.9
Smartphone	90% faster than	[Mbit/s]	60.0	14.0	24.1
	10% faster than	[Mbit/s]	296.3	228.1	175.4
	Qualifier	[%]	99.7	99.7	99.9
HTTP 5MB UL	Average Session Time	[s]	3.1	2.6	4.1
Smartphone	90% faster than	[Mbit/s]	5.6	9.0	4.6
	10% faster than	[Mbit/s]	75.5	69.1	61.7
	Qualifier	[%]	99.7	99.7	99.8
LITTO DI COTT	10% faster than	[Mbit/s]	650.2	544.8	560.0
HTTP DL FDTT	faster than 20 Mbit/s	[%]	98.1	85.3	92.4
	faster than 100 Mbit/s	[%]	88.2	62.5	73.4
	Qualifier	[%]	99.7	99.8	99.3
LITTO LIL COTT	10% faster than	[Mbit/s]	111.0	97.7	93.1
HTTP UL FDTT	faster than 2 Mbit/s	[%]	98.4	98.7	97.0
	faster than 5 Mbit/s	[%]	93.2	96.0	89.9
	Qualifier	[%]	99.6	98.5	98.5
YouTube	Start Time	[s]	2.3	2.7	2.6
	AVG Resolution	[p]	1079.7	1079.7	1077.9
	Qualifier	[%]	99.4	97.6	98.3
YouTube Live Smartphone	Start Time	[s]	2.9	3.4	3.4
Smartphone	AVG Resolution	[p]	1078.6	1071.6	1048.3
Interactivity	Qualifier	[%]	97.2	97.7	82.4
Egaming	Interactivity score	[%]	76.8	59.3	65.8
Interactivity	Qualifier	[%]	94.3	92.4	78.1
Videochat '	Interactivity score	[%]	86.7	84.0	84.6
Conversational Arms	Qualifier	[%]	99.7	99.7	99.6
Conversational App	Speech Quality (P10)	[MOS-LQO]	4.0	3.5	3.7

#### Data Services KPI overview

Achieved values of all networks under test in each of the relevant Data Key Performance Indicators (KPIs) for the geographical category "Towns".

Data Towns	KPI Name	Unit	One New Zealand	2degrees	Spark
HTTP Web Page DL	Qualifier	[%]	99.6	99.3	99.7
Smartphone	Overall Session Time	[s]	1.6	1.9	1.7
	Qualifier	[%]	100.0	100.0	100.0
HTTP 10MB DL	Overall Session Time	[s]	1.2	2.6	1.6
Smartphone	90% faster than	[Mbit/s]	53.5	18.0	38.2
	10% faster than	[Mbit/s]	284.5	202.1	169.0
	Qualifier	[%]	99.4	99.7	100.0
HTTP 5MB UL	Average Session Time	[s]	3.8	4.4	4.0
Smartphone	90% faster than	[Mbit/s]	4.6	4.4	4.9
	10% faster than	[Mbit/s]	63.0	50.4	53.2
	Qualifier	[%]	100.0	99.7	100.0
LITTO DI COTT	10% faster than	[Mbit/s]	644.9	463.5	567.9
HTTP DL FDTT	faster than 20 Mbit/s	[%]	97.1	86.8	94.9
	faster than 100 Mbit/s	[%]	86.9	54.1	78.3
	Qualifier	[%]	99.4	100.0	99.4
LITTO LIL COTT	10% faster than	[Mbit/s]	96.5	76.6	74.4
HTTP UL FDTT	faster than 2 Mbit/s	[%]	98.9	97.1	95.7
	faster than 5 Mbit/s	[%]	90.8	88.7	87.8
	Qualifier	[%]	99.7	97.4	99.5
YouTube	Start Time	[s]	2.4	2.7	2.7
	AVG Resolution	[p]	1079.1	1076.9	1077.5
	Qualifier	[%]	99.4	98.8	99.2
YouTube Live Smartphone	Start Time	[s]	3.1	3.5	3.4
Smartphone	AVG Resolution	[p]	1079.0	1071.3	1061.7
Interactivity	Qualifier	[%]	96.3	96.0	91.5
Egaming	Interactivity score	[%]	72.5	62.9	64.8
Interactivity	Qualifier	[%]	94.0	95.3	91.0
Videochat '	Interactivity score	[%]	87.8	86.7	87.9
C	Qualifier	[%]	99.8	100.0	100.0
Conversational App	Speech Quality (P10)	[MOS-LQO]	4.1	3.7	3.9

16

Achieved values of all networks under test in each of the relevant Data Key Performance Indicators (KPIs) for the geographical category "Roads".

Data Roads	KPI Name	Unit	One New Zealand	2 degrees	Spark
HTTP Web Page DL	Qualifier	[%]	89.3	88.6	89.9
Smartphone	Overall Session Time	[s]	2.0	2.4	2.2
	Qualifier	[%]	90.1	91.2	90.4
HTTP 10MB DL	Overall Session Time	[s]	4.0	6.8	4.9
Smartphone	90% faster than	[Mbit/s]	9.0	4.9	10.6
	10% faster than	[Mbit/s]	224.8	137.5	148.1
	Qualifier	[%]	89.5	86.0	88.2
HTTP 5MB UL	Average Session Time	[s]	8.4	9.7	7.8
Smartphone	90% faster than	[Mbit/s]	1.8	1.6	2.2
	10% faster than	[Mbit/s]	49.0	36.2	51.0
	Qualifier	[%]	91.0	89.2	91.1
LITTO DI FOTT	10% faster than	[Mbit/s]	544.1	305.7	499.2
HTTP DL FDTT	faster than 20 Mbit/s	[%]	84.2	63.2	81.8
	faster than 100 Mbit/s	[%]	48.0	23.2	50.3
	Qualifier	[%]	86.9	86.9	85.3
HTTP UL FDTT	10% faster than	[Mbit/s]	62.7	52.5	67.0
HIIP OL FUIT	faster than 2 Mbit/s	[%]	86.8	87.2	91.1
	faster than 5 Mbit/s	[%]	71.1	74.1	79.7
	Qualifier	[%]	84.3	82.2	85.4
YouTube	Start Time	[s]	2.8	3.4	3.1
	AVG Resolution	[p]	1080.0	1071.2	1075.1
.,	Qualifier	[%]	85.9	78.6	82.2
YouTube Live Smartphone	Start Time	[s]	3.5	3.9	3.9
- Indicphone	AVG Resolution	[p]	1075.6	1063.0	1039.9
Interactivity	Qualifier	[%]	78.2	74.2	67.4
Egaming	Interactivity score	[%]	64.2	51.4	58.5
Interactivity	Qualifier	[%]	73.2	72.9	76.1
Videochat '	Interactivity score	[%]	87.1	84.5	83.0
Conversational A	Qualifier	[%]	95.2	90.3	91.4
Conversational App	Speech Quality (P10)	[MOS-LQO]	3.9	3.4	3.6

umlaut certificate



#### Crowd KPI overview

Achieved values of all networks under test in each of the relevant Crowd Key Performance Indicators (KPIs) for the categories "Broadband Coverage", "Download Speed", "Latency", "Voice Crowd" and "Stability".

Category	KPI name	Unit	One New Zealand	2degrees	Spark
	Coverage Quality	[%]	95.5	95.1	94.6
Broadband Coverage	Coverage Reach	[%]	88.5	85.7	92.0
Coverage	Time on broadband	[%]	97.9	97.5	95.9
	Basic internet class	[%]	95.8	95.2	91.0
Download Speed	HD video class	[%]	85.7	85.6	83.0
	UHD video class	[%]	30.6	27.4	28.4
	OTT voice class	[%]	97.6	97.0	95.8
Latency	Gaming class	[%]	81.4	74.7	64.1
	Egoshooter class	[%]	2.1	10.1	4.6
Voice	HD voice	[%]	95.4	97.7	96.4
	90% faster than	[Mbit/s]	2.7	3.2	2.2
Download Speed Active	10% faster than	[Mbit/s]	374.2	255.2	268.8
Active .	AVG data rate	[Mbit/s]	122.6	88.9	82.3
	90% faster than	[Mbit/s]	2.0	2.9	1.8
Upload Speed Active	10% faster than	[Mbit/s]	55.3	52.2	49.3
	AVG data rate	[Mbit/s]	23.4	23.8	20.2
Stability	Transaction success	[%]	94.8	93.6	93.1





#### umlaut

umlaut communications GmbH Am Kraftversorgungsturm 3 · 52070 Aachen · Germany

www.umlaut.com/benchmarking