

# best in test.

For adding something on top in Canada and reaching an overall score of 889 dots in mobile network benchmarking survey we proudly award this certificate to

## Rogers Communications Canada Inc.

Score 889 out of 1000 in Total  
Score 232 out of 270 in Voice Services  
Score 428 out of 480 in Data Services  
Score 229 out of 250 in Crowdsourced Quality



Hakan Ekmen  
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 Canada.

The audit was done as a performance benchmark performed by umlaut between 27.03.2023 and 07.06.2023 in cities and towns as well as on connection roads.

Dedicated measurements have been executed as drive tests outdoors using a Samsung Galaxy S21+5G and a Samsung Galaxy S22 Ultra 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 26.12.2022 and 11.06.2023. The following pages provide a comparative overview about the performance results observed for the different tested service types.



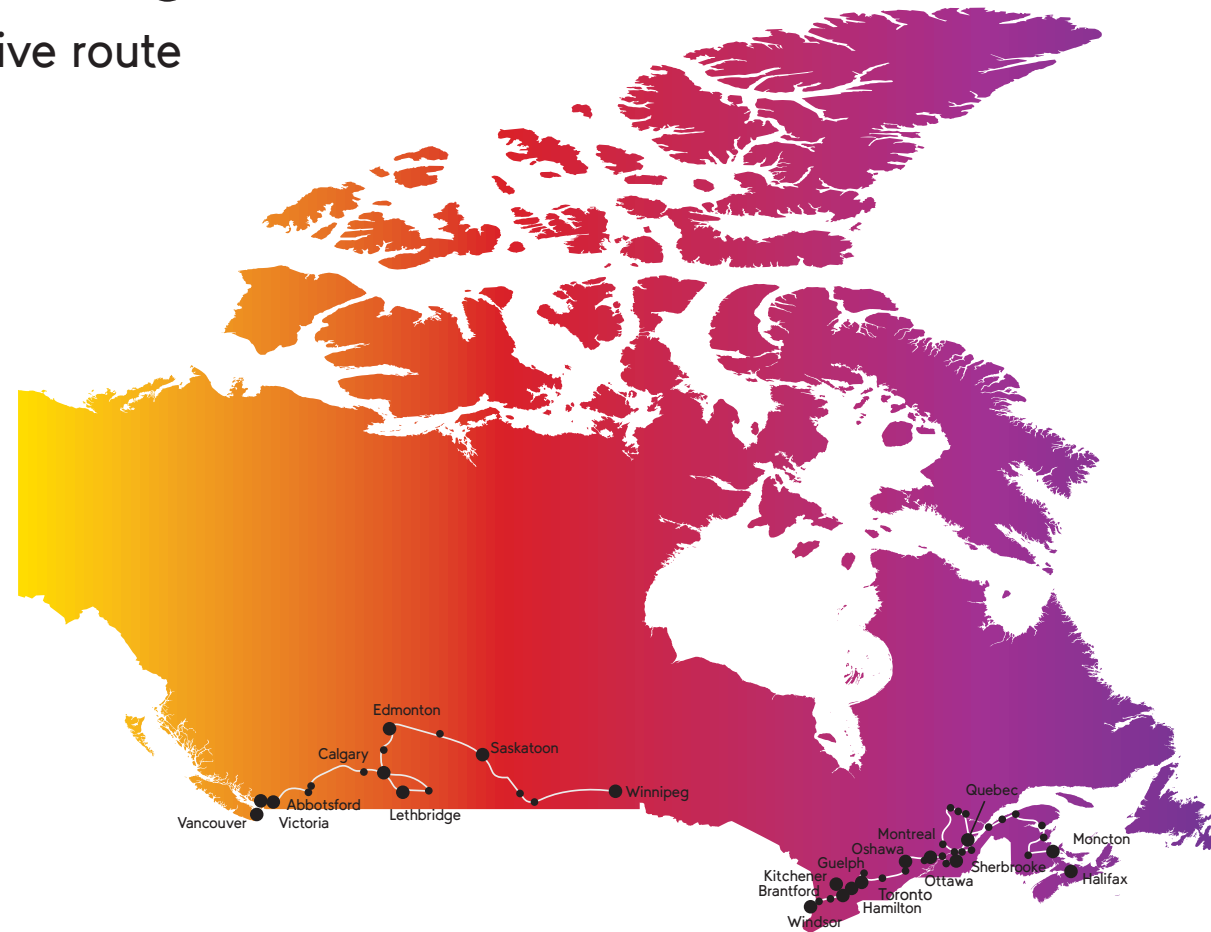
# Measurement setup

Drivetest	Voice	Data
Device	Samsung Galaxy S21+5G	Samsung Galaxy S22 Ultra 5G
Test Cases	Mobile-to-Mobile (M2M) Side1 (5G preferred: Volte) to Side2 (5G preferred: Volte) 115 sec call window 70 sec call duration 15 sec call setup timeout Multi-RAB traffic injection on both sides	Data 5G preferred HTTP DL datastream 7s HTTP UL datastream 7s HTTP 10MB DL fixed file transfer HTTP 5MB UL fixed file transfer Web Browsing – Kepler ETSI Ref. Page E-Gaming 10 Live web pages (6 local / 4 global) 1 YouTube Full HD video ~ 45s 1 YouTube Ultra HD video ~ 45s 1 YouTube live stream ~ 45s
Mobility and Route Types	Drive test 100% 50–70% in Cities, 10–25% in Towns and 10–40% on Roads	
Samples	~ 37000 per Operator	~ 310000 per Operator
Dates	47 measurement days 27.03.2023 – 07.06.2023	
Crowd Data Assessment	24 weeks (CW52 2022 – CW23 2023) 26.12.2022 – 11.06.2023	




# Testing areas

## Drive route

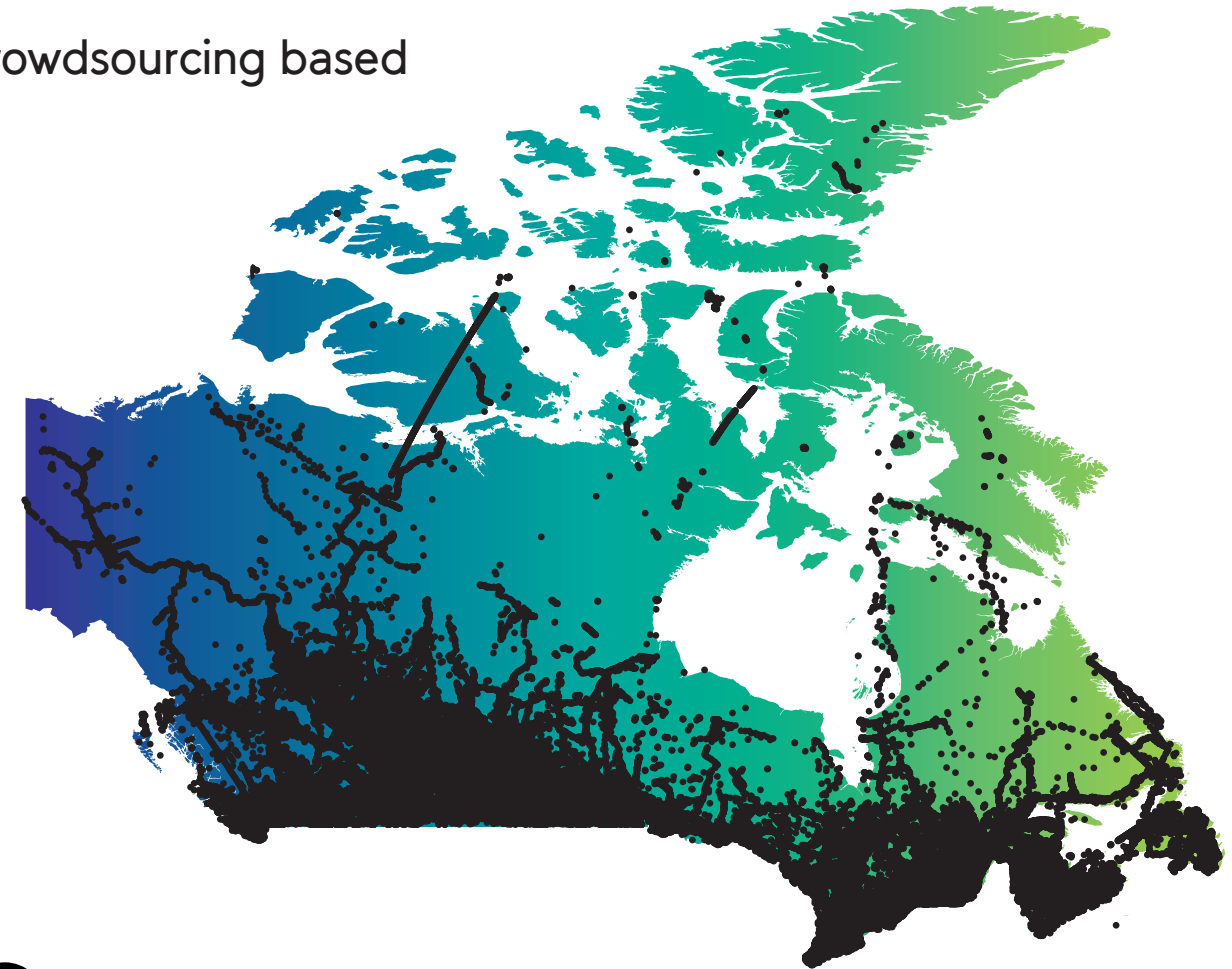



 **30.000 km**  
measuring distance


 **59 %**  
of population measured


**Cities measured:** Halifax, Moncton, Quebec, Sherbrooke, Montreal, Ottawa, Oshawa, Toronto, Hamilton, Guelph, Kitchener, Brantford, Windsor, Victoria, Vancouver, Abbotsford, Calgary, Lethbridge, Edmonton, Saskatoon, Winnipeg **Towns measured:** Fredericton, Miramichi, Bathurst, Matane, Rimouski, Rivière-du-Loup, Saguenay, Alma, Dolbeau-Mistassini, Shawinigan, Victoriaville, Thetford Mines, Saint Georges, Cowansville, Granby, Saint-Hyacinthe, Beloeil, Châteauguay, Hudson, Buckingham, Brockville, Belleville, Lindsay, Uxbridge, Whitchurch-Stouffville, Tilsonburg, St. Thomas, Chatham-Kent, Ferry Access, North Saanich, Chilliwack, Kelowna, Vernon, Canmore, Medicine Hat, Airdrie, Sylvan Lake, Spruce Grove, Stony, Plain, Fort Saskatchewan, Lloydminster, Weyburn, Estevan

## Crowdsourcing based



 **98.8 %**  
of the 'build-up area' covered

 **98.6 %**  
of the 'Population area' covered

 **655.862 km<sup>2</sup>**  
size of tested area



# Claims




**Best in test**  
Rogers Communications  
Canada Inc.



**Best in data**  
Rogers Communications  
Canada Inc.



**Best in voice**  
Rogers Communications  
Canada Inc.



**Best in reliability**  
Rogers Communications  
Canada Inc.



# Methodology

The leader in mobile benchmarking, umlaut, has analyzed the mobile networks of Canada 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.

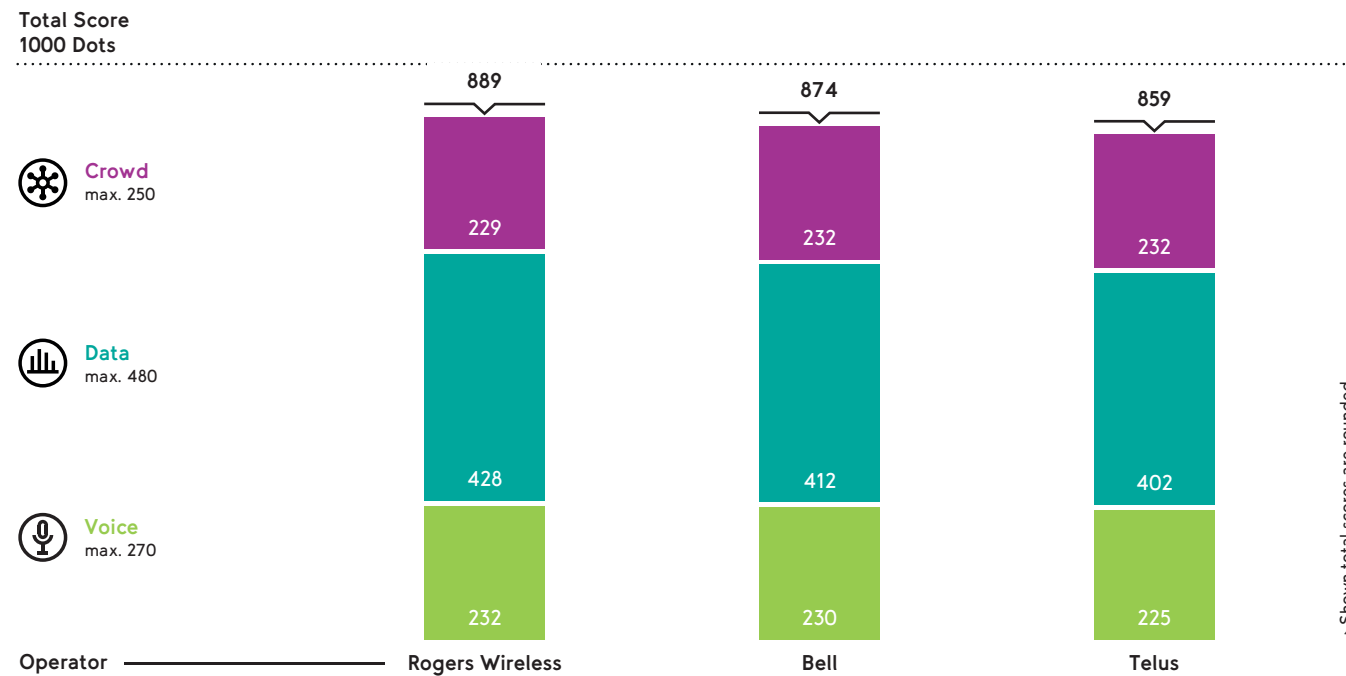
We objectively define the routes and test methodology and publish the results through certificates or public benchmark reports. In addition crowdsourced performance data has been collected and evaluated. As the de-facto industry standard, our benchmarking methodology focuses on customer-experienced network 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

Rogers Communications Canada Inc. achieved the highest overall score among competitors with 889 dots out of 1000.



~ Shown total scores are rounded.

Overall score considering Voice, Data and Crowdsourcing.

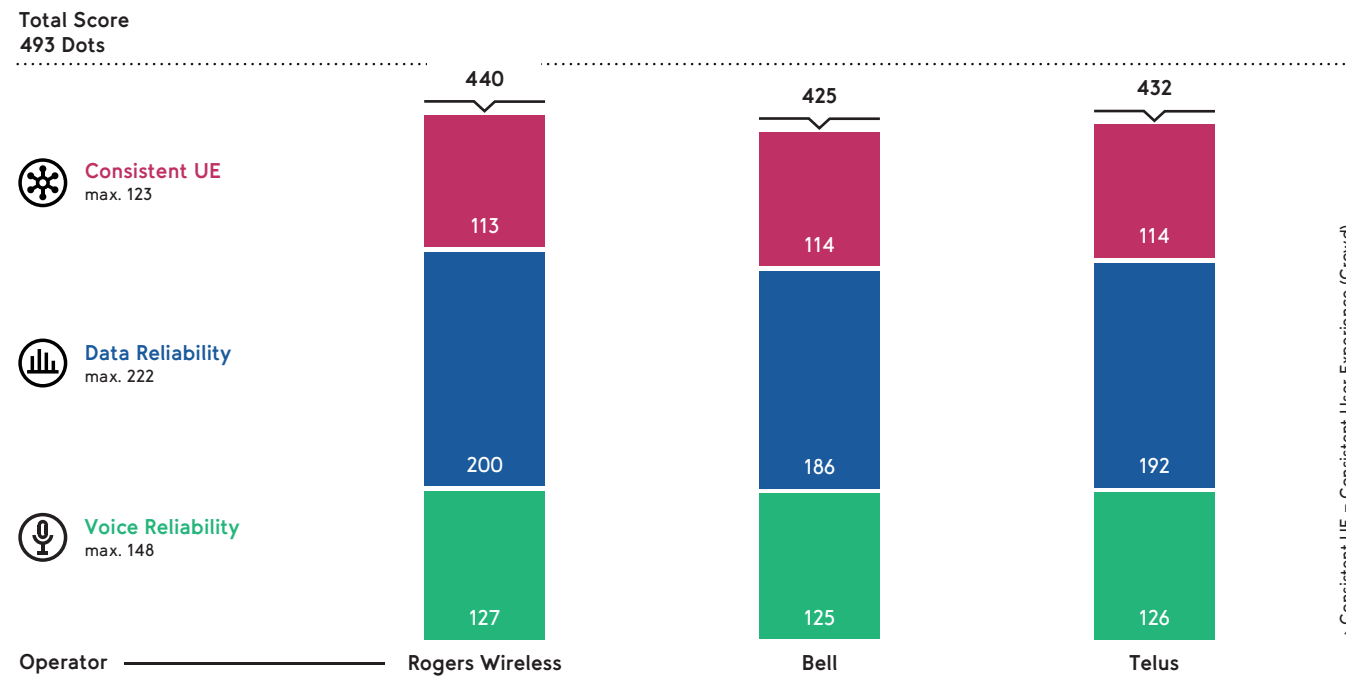
## Total score

	Rogers Wireless	Bell	Telus
Voice	max. 270 232	230	225
Cities Drivetest	162	88%	87%
Towns Drivetest	54	92%	85%
Roads Drivetest	54	56%	69%
Data	max. 480 428	412	402
Cities Drivetest	288	96%	90%
Towns Drivetest	96	91%	84%
Roads Drivetest	96	68%	64%
Crowdsourced Quality	max. 250 229	232	232
Broadband Coverage	100	94%	95%
Download Speed	50	89%	89%
Latency	50	88%	92%
Voice	13	93%	92%
Download Speed Active	13	95%	97%
Upload Speed Active	13	89%	84%
Stability	13	94%	93%
<b>Total</b>	<b>1000</b>	<b>874</b>	<b>859</b>

Shown scores are rounded.



# Reliability



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

## Total score

	Service Group	max	Rogers Wireless	Bell	Telus
Reliability	Voice Reliability	149	85%	84%	84%
	Data Reliability	222	90%	84%	87%
	Consistent User Experience	123	92%	93%	93%

Score achievement in school grades:  
outstanding (≥95%), very good (≥85% and <95%), good (≥75% and ≤85%), satisfactory (≤65% and <75%), sufficient (≤55% and <65%).



**umlaut – Part of Accenture**

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