

best in test

For adding something on top in Australia and reaching an overall score of 920 dots in mobile network benchmarking survey we proudly award this certificate to

Telstra Australia

Score 920 out of 1000 in Total

Score 250 out of 270 in Voice Services

Score 439 out of 480 in Data Services

Score 231 out of 250 in Crowdsourced Quality

Reliability Score 553 out of 600 in Total

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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 Australia.

The audit was done as a performance benchmark performed by umlaut between 29.09.2025 and 28.10.2025 in cities and towns as well as on connection roads.

Dedicated measurements were taken via outdoor drive tests and walk tests using a Samsung Galaxy S24 Ultra. 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 CW20 2025 and CW43 2025.

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



Drive Test	Voice	Conversational App	Data
Device	Samsung Galaxy S24 Ultra	Samsung Galaxy S24 Ultra	Samsung Galaxy S24 Ultra
Test Cases	Mobile-to-Mobile Side1 (VoLTE,5G pref.) to Side2 (VoLTE, 5G pref.) 105 sec call window 70 sec call duration 15 sec call setup timeout Multi-RAB traffic injection on both sides	Mobile-to-Mobile Side1 (VoLTE, 5G pref.) to side2 (VoLTE, 5G pref.) 105 sec call window 70 sec call duration 15 sec call setup timeout	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 – (4 international pages, 4 local pages, 1 ETSI reference, 1 umlaut reference page) 2 YouTube videos ~45s (Full HD and Live Full GD) Interactivity eGaming, Vdeio Chat HD
Mobility & Route Types	~64% in Cities, ~15% in Towns and ~20% on Roads		
Samples	31,842 Voice Samples		306,024 Data Samples
Dates	29.09.2025 – 28.10.2025		



Testing area

Driving Route

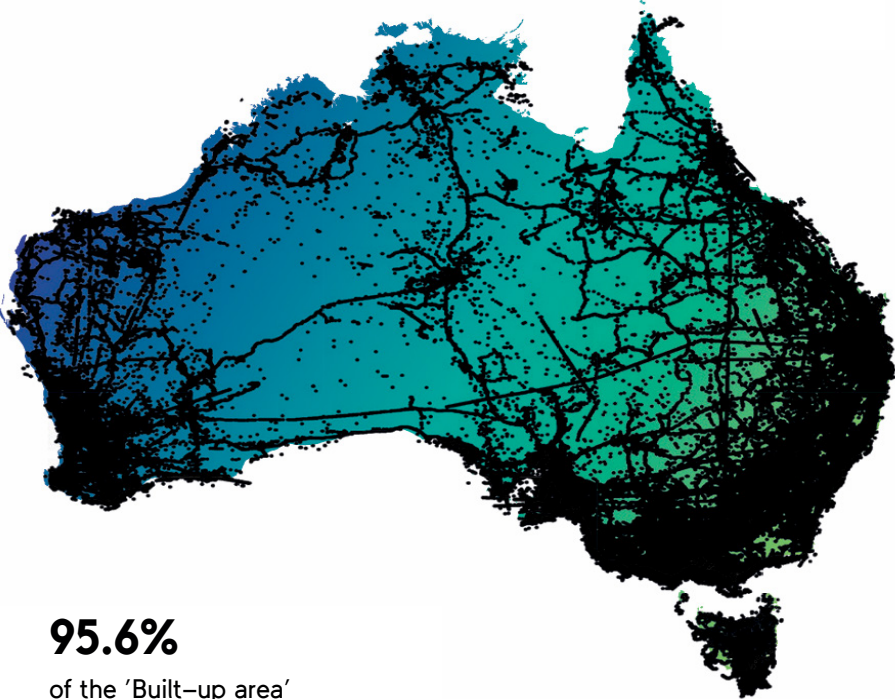


 **22,400 km**
measuring distance

 **~75%**
of population covered



Crowdsourcing based test area



 **95.6%**
of the 'Built-up area'
covered

 **99.3%**
of the 'Population area'
covered

 **938,985 km²**
size of tested area



Claims





Best in Reliability
Telstra Australia



Best in test
Telstra Australia



Best in voice
Telstra Australia



Best in data
Telstra Australia



Best in crowd-sourced quality
Telstra Australia



Methodology

As the de-facto industry standard, umlaut’s benchmarking methodology focuses on customer-perceived network quality and covers a wide range of mobile and fixed broadband services.

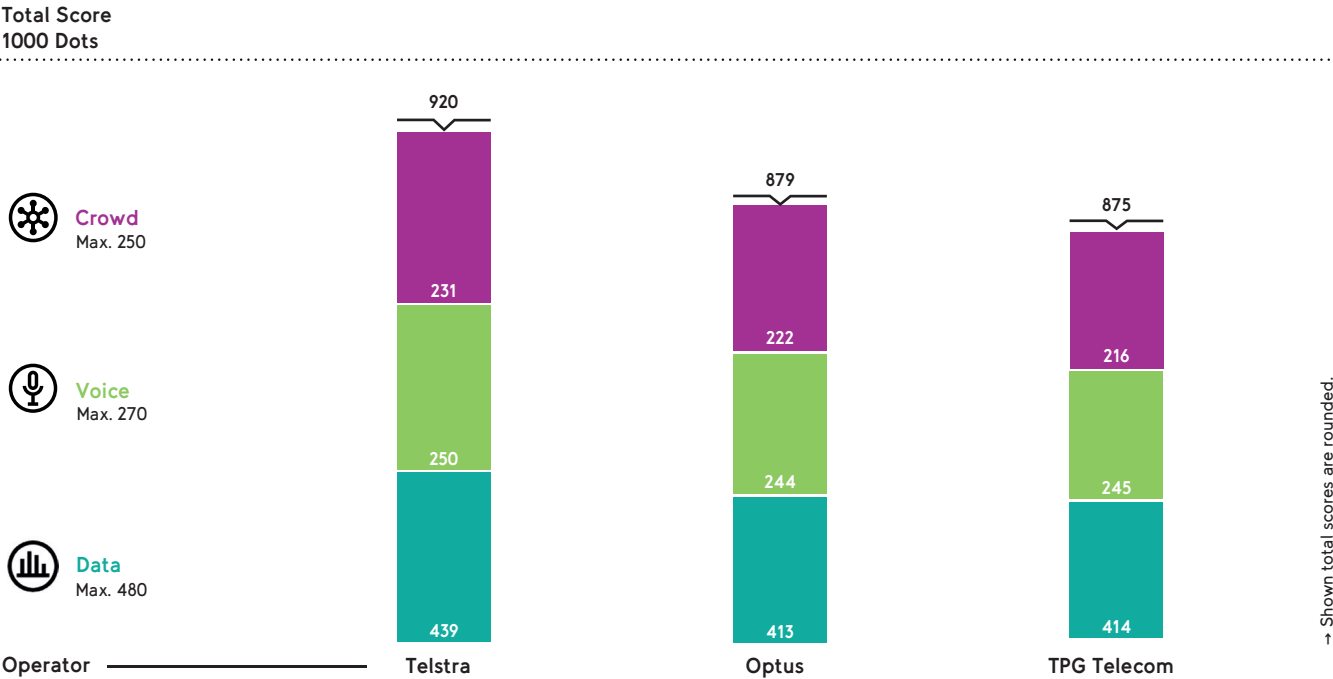
For the collection of crowd-data used for this certification report, we have integrated a background diagnosis processes into thousands of diverse Android apps. If one of these applications is installed on the end-user’s phone, data collection takes place 24/7, 365 days a year. We focus on the user experience. Our data collection is compliant with the GDPR, since we do not include any personal user data. This unique crowdsourcing technology allows us to collect data about real-world experience wherever and whenever customers use their smartphones to consume data services or place phone calls.

The umlaut benchmarking framework is based on a unified measurement method for true international comparability combined with the umlaut-Score approach. Our top priority is to fairly and transparently assess the global development of networks, push their quality and performance with our benchmarks and ultimately achieve improvements for every customer.



Score and breakdown

Telstra achieved the highest overall score among competitors with 920 dots out of 1000.



Overall score considering Crowdsourcing, Voice and Data.



Total Scores

		Telstra	Optus	TPG Telecom
Crowd	max. 250	231	222	216
Broadband Coverage	100	96%	89%	86%
Download speed (Service Category)	19	92%	93%	92%
Upload speed (Service Category)	19	84%	73%	77%
Download Speed (Data Rates)	19	83%	86%	82%
Upload Speed (Data Rates)	19	92%	89%	91%
Latency	50	88%	88%	84%
Voice	10	100%	100%	100%
Stability	15	97%	97%	97%
Voice	max. 270	250	244	245
Cities drive test	122	97%	95%	95%
Cities walk test	41	98%	93%	97%
Towns drive test	54	96%	96%	96%
Roads drive test	54	75%	72%	71%
Data	max. 480	439	413	414
Cities drive test	216	96%	93%	94%
Cities walk test	72	93%	88%	92%
Towns drive test	96	96%	88%	87%
Roads drive test	96	76%	66%	64%
Total	1000	920	879	875

Shown scores are rounded.



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

Data	Service group	Max.	Telstra	Optus	TPG Telecom
Cities drive test	Web Browsing	37.8	98%	97%	97%
	File Download	43.2	98%	97%	96%
	File Upload	43.2	96%	94%	94%
	YouTube	36.7	95%	91%	92%
	OTT	55.1	94%	90%	91%
Cities walk test	Web Browsing	12.6	96%	91%	94%
	File Download	14.4	97%	94%	94%
	File Upload	14.4	90%	83%	89%
	YouTube	12.2	94%	80%	91%
	OTT	18.4	90%	89%	91%
Towns	Web Browsing	16.8	97%	94%	92%
	File Download	19.2	98%	90%	88%
	File Upload	19.2	95%	89%	88%
	YouTube	16.3	95%	85%	83%
	OTT	24.5	93%	85%	84%
Roads	Web Browsing	16.8	82%	73%	72%
	File Download	19.2	81%	62%	64%
	File Upload	19.2	74%	62%	59%
	YouTube	16.3	66%	52%	50%
	OTT	24.48	76%	75%	72%

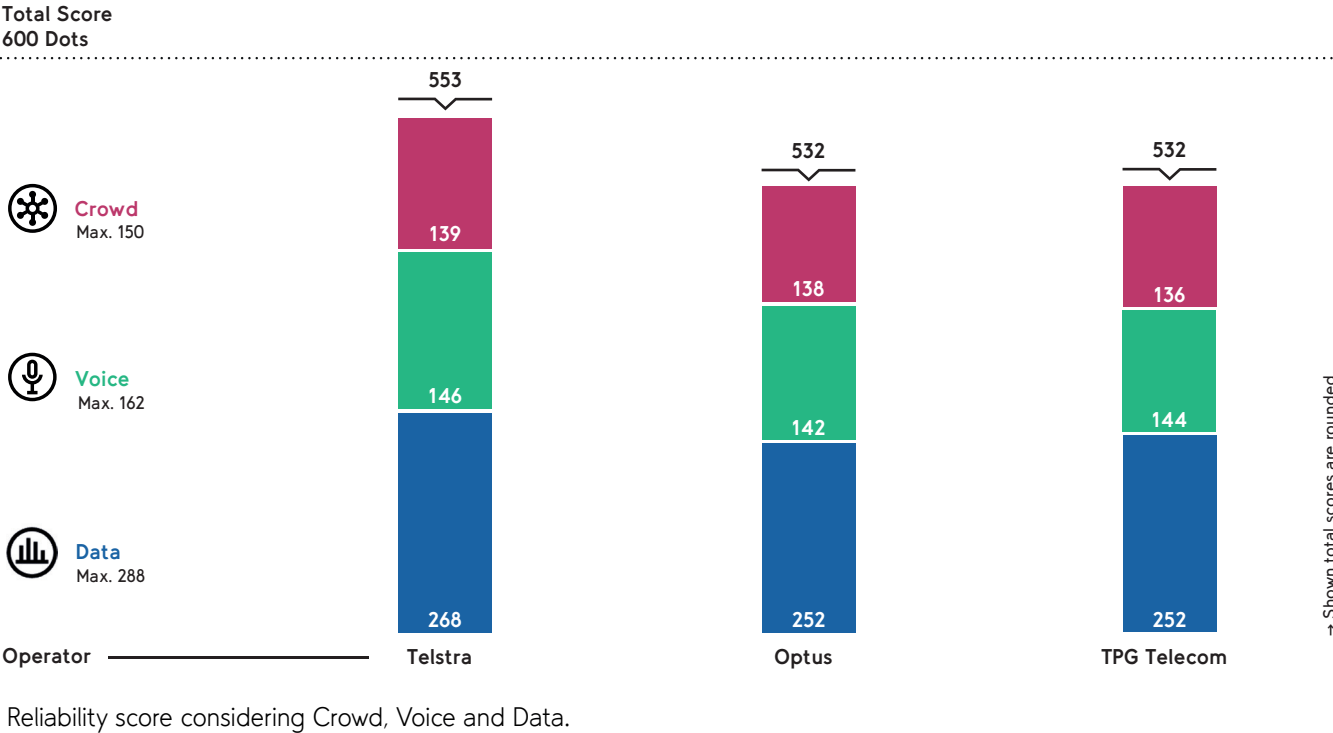


Achieved percentage of the maximum score in each of the different crowdsourcing services.

Crowd	Service group	Max.	Telstra	Optus	TPG Telecom
Crowdsourced Quality	Broadband Coverage	100	96%	89%	86%
	Download speed (Service Category)	19	92%	93%	92%
	Upload speed (Service Category)	19	84%	73%	77%
	Download Speed (Data Rates)	19	83%	86%	82%
	Upload Speed (Data Rates)	19	92%	89%	91%
	Latency	50	88%	88%	84%
	Voice	10	100%	100%	100%
	Stability	15	97%	97%	97%



Reliability



Total Scores

	Service group	Max.	Telstra	Optus	TPG Telecom
Reliability	Crowd	150	93%	92%	91%
	Voice	162	90%	88%	89%
	Data	288	93%	88%	88%

Score achievement in school grades:
outstanding (95%), very good (85% and <95%), good (75% and 85%), satisfactory (65% and <75%), sufficient (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	Telstra	Optus	TPG Telecom
Cities drive test	Qualifier	[%]	99.8	99.7	99.7
	Call Setup Time P90)	[s]	1.8	2.1	2.1
	Speech Quality (P10)	[MOS–LQO]	4.5	4.5	4.5
Cities walk test	Qualifier	[%]	99.9	99.4	99.8
	Call Setup Time P90)	[s]	1.9	2.2	1.9
	Speech Quality (P10)	[MOS–LQO]	4.6	4.6	4.6
Towns	Qualifier	[%]	99.7	99.7	99.8
	Call Setup Time P90)	[s]	1.8	2.2	2.2
	Speech Quality (P10)	[MOS–LQO]	4.5	4.4	4.4
Roads	Qualifier	[%]	94.7	94	93.9
	Call Setup Time P90)	[s]	2	2.3	2.5
	Speech Quality (P10)	[MOS–LQO]	4.2	4.3	4.2



Data Service KPI overview

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

Services	KPI name	Unit	Telstra	Optus	TPG Telecom
HTTP Web page DL Smartphone	Qualifier	[%]	99.9	99.9	99.9
	Overall session time	[s]	1.1	1.3	1.2
HTTP 10MB DL Smart–phone	Qualifier	[%]	100	100	100
	Average session time	[s]	0.9	1.2	1.2
	90% faster than	[Mbit/s]	79.8	47.9	40.3
	10% faster than	[Mbit/s]	264	326.5	281.7
HTTP 5MB UL Smart–phone	Qualifier	[%]	100	100	100
	Average session time	[s]	1.8	2.3	2.2
	90% faster than	[Mbit/s]	12.4	9.1	10.8
	10% faster than	[Mbit/s]	74.5	76.8	64.9
HTTP DL FDTT	Qualifier	[%]	100	99.8	99.9
	10% faster than	[Mbit/s]	572.1	885.3	533
	Faster than 20Mbits/s	[%]	99.5	97.4	97.2
	Faster than 100Mbits/s	[%]	91.1	85.5	78.2
HTTP UL FDTT	Qualifier	[%]	100	100	99.9
	10% faster than	[Mbit/s]	101.7	111.6	88.8
	Faster than 2Mbits/s	[%]	99.9	99.4	99.5
	Faster than 5Mbits/s	[%]	98.9	97.1	97.6
YouTube	Qualifier	[%]	99.8	99.5	99.6
	Start time	[s]	1.9	2.1	2.1
	Average resolution	[p]	1080	1079.9	1079.9
YouTube live smartphone	Qualifier	[%]	99.7	99.2	99.3
	Start time	[s]	2.5	2.8	2.7
	Average resolution	[p]	1079.7	1079.1	1079
Interactivity EGaming	Qualifier	[%]	98.5	96.9	97.5
	Interactivity score	[%]	80.7	73.1	74.6
Interactivity videochat	Qualifier	[%]	97.2	95.5	95.5
	Interactivity score	[%]	91.5	88.2	88
Conversational app	Qualifier	[%]	99.9	99.8	99.9
	Speech quality (P10)	[MOS–LQO]	4.1	3.8	3.8



Data Service KPI overview

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

Services	KPI name	Unit	Telstra	Optus	TPG Telecom
HTTP Web page DL Smartphone	Qualifier	[%]	99.8	99.1	99.5
	Overall session time	[s]	1.3	1.4	1.3
HTTP 10MB DL Smart–phone	Qualifier	[%]	100	99.8	100
	Average session time	[s]	1	1.5	1.4
	90% faster than	[Mbit/s]	71.5	39.5	33.8
	10% faster than	[Mbit/s]	242.4	258.7	304.1
HTTP 5MB UL Smart–phone	Qualifier	[%]	99.4	99.3	99.3
	Average session time	[s]	2.2	3.9	2.6
	90% faster than	[Mbit/s]	10.7	5.3	10
	10% faster than	[Mbit/s]	70.3	65.7	76.3
HTTP DL FDTT	Qualifier	[%]	99.8	99.4	99.4
	10% faster than	[Mbit/s]	463.5	731.5	627.3
	Faster than 20Mbits/s	[%]	98.9	97.4	97
	Faster than 100Mbits/s	[%]	86.1	79.4	70.9
HTTP UL FDTT	Qualifier	[%]	99.6	99.3	99.3
	10% faster than	[Mbit/s]	93.1	91.3	110.7
	Faster than 2Mbits/s	[%]	98.9	98.2	99.6
	Faster than 5Mbits/s	[%]	98.2	93.8	95.8
YouTube	Qualifier	[%]	100	97.6	99.6
	Start time	[s]	2	2.2	2.1
	Average resolution	[p]	1080	1080	1079
YouTube live smartphone	Qualifier	[%]	99.6	98.5	99.4
	Start time	[s]	2.7	2.9	2.8
	Average resolution	[p]	1079.8	1078.7	1078.7
Interactivity EGaming	Qualifier	[%]	94.7	95.7	97.1
	Interactivity score	[%]	75.2	69.8	73.2
Interactivity videochat	Qualifier	[%]	93.7	96.5	95.6
	Interactivity score	[%]	90.5	88.7	89
Conversational app	Qualifier	[%]	99.9	99.8	99.9
	Speech quality (P10)	[MOS–LQO]	4.2	4.2	4.1



Data Service KPI overview

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

Services	KPI name	Unit	Telstra	Optus	TPG Telecom
HTTP Web page DL Smartphone	Qualifier	[%]	99.9	99.6	99.3
	Overall session time	[s]	1.2	1.5	1.4
HTTP 10MB DL Smart–phone	Qualifier	[%]	100	99.8	99.7
	Average session time	[s]	1	2.2	1.8
	90% faster than	[Mbit/s]	72.4	22.3	23.5
	10% faster than	[Mbit/s]	250.5	214.5	244.9
HTTP 5MB UL Smart–phone	Qualifier	[%]	100	99.7	99.7
	Average session time	[s]	1.9	3.1	3.2
	90% faster than	[Mbit/s]	11.6	7.5	6.7
	10% faster than	[Mbit/s]	69.4	56.9	54.5
HTTP DL FDTT	Qualifier	[%]	100	99.8	99.1
	10% faster than	[Mbit/s]	632.8	614.1	486.7
	Faster than 20Mbits/s	[%]	99	92.1	93.8
	Faster than 100Mbits/s	[%]	91.6	62.5	66.6
HTTP UL FDTT	Qualifier	[%]	100	99.9	99.8
	10% faster than	[Mbit/s]	98.3	79.2	75
	Faster than 2Mbits/s	[%]	99.8	99	99.1
	Faster than 5Mbits/s	[%]	98.2	94.8	96
YouTube	Qualifier	[%]	99.8	98.7	98.7
	Start time	[s]	2	2.4	2.3
	Average resolution	[p]	1079.9	1079.5	1078.7
YouTube live smartphone	Qualifier	[%]	99.9	99	98.3
	Start time	[s]	2.6	3	2.9
	Average resolution	[p]	1079.3	1076.8	1076.3
Interactivity EGaming	Qualifier	[%]	97.8	91.3	94
	Interactivity score	[%]	77.3	68.3	66
Interactivity videochat	Qualifier	[%]	97.4	94.9	92.1
	Interactivity score	[%]	91.2	85.5	84.4
Conversational app	Qualifier	[%]	99.8	99.7	99.5
	Speech quality (P10)	[MOS–LQO]	4.1	3.8	3.7



Data Service KPI overview

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

Services	KPI name	Unit	Telstra	Optus	TPG Telecom
HTTP Web page DL Smartphone	Qualifier	[%]	96.5	94.9	94.8
	Overall session time	[s]	1.6	1.8	1.9
HTTP 10MB DL Smart-phone	Qualifier	[%]	98.7	96.7	97.7
	Average session time	[s]	3.8	5.2	5
	90% faster than	[Mbit/s]	8.6	6.3	7.2
	10% faster than	[Mbit/s]	216.8	179.4	190.2
HTTP 5MB UL Smart-phone	Qualifier	[%]	97.4	95.6	95.7
	Average session time	[s]	5.6	6.8	7.6
	90% faster than	[Mbit/s]	3.2	2.5	2.2
	10% faster than	[Mbit/s]	51.5	44.7	39.8
HTTP DL FDTT	Qualifier	[%]	97.5	92.9	92.4
	10% faster than	[Mbit/s]	485.2	372.8	340.6
	Faster than 20Mbits/s	[%]	79.9	73.5	72.7
	Faster than 100Mbits/s	[%]	53.1	37.5	38.3
HTTP UL FDTT	Qualifier	[%]	97.2	95.3	95.3
	10% faster than	[Mbit/s]	71.1	59.4	52.3
	Faster than 2Mbits/s	[%]	94.6	92.4	90.8
	Faster than 5Mbits/s	[%]	85.2	78.9	77.6
YouTube	Qualifier	[%]	95.2	92.3	91.7
	Start time	[s]	2.5	2.7	2.7
	Average resolution	[p]	1077.9	1076.7	1077.3
YouTube live smartphone	Qualifier	[%]	91.7	89.2	89.3
	Start time	[s]	3.2	3.4	3.4
	Average resolution	[p]	1070.8	1068	1062.2
Interactivity EGaming	Qualifier	[%]	88.4	85.2	85
	Interactivity score	[%]	67	63	61
Interactivity videochat	Qualifier	[%]	83.6	85	81.7
	Interactivity score	[%]	87.5	87	85.9
Conversational app	Qualifier	[%]	95.9	96.8	96.1
	Speech quality (P10)	[MOS-LQO]	3.6	3.5	3.4



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", "Upload Speed", "Latency". "Voice Crowd" and "Stability".

Category	KPI name	Unit	Telstra	Optus	TPG Telecom
Broadband Coverage	Coverage Reach	[%]	95.9	87.1	82.8
	Time on broadband	[%]	99.7	99.6	99.5
Download Speed (Service Category)	Basic internet class	[%]	89.4	89.9	89.1
	HD video class	[%]	74.1	72.1	72.2
	UHD video class	[%]	97.2	97.1	96.6
Upload Speed (Service Category)	Basic internet class	[%]	94.7	92.3	93.2
	HD video class	[%]	81.8	75.2	78.1
Download Speed (Data Rates)	P10 data rate	[Mbit/s]	5.2	5.6	5
	P90 data rate	[Mbit/s]	353	424.8	340.7
	AVG data rate	[Mbit/s]	135.4	149.9	123.5
Upload Speed (Data Rates)	P10 data rate	[Mbit/s]	3	2.4	2.6
	P90 data rate	[Mbit/s]	56	52.8	47.8
	AVG data rate	[Mbit/s]	24.1	21.6	20.7
Latency	OTT voice class	[%]	97.3	97	95.9
	Gaming class	[%]	84.2	87.2	86.6
	Egoshooter class	[%]	20.8	21.2	30.2
Voice	HD voice	[%]	100	100	100
Stability	Transaction Success	[%]	96.6	97.5	97.2



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