This press release gives the aggregated speed test results from the hundreds of thousands of tests carried out by users of broadband.co.uk during December 2019.

Fixed line home broadband providers

Average fixed line download & upload speeds (Mbps) – December 2019						
Rank	\\\.	as Broadband Provider	Average Download		Average Upload	
nalik Wa	vvas		Speed	Change	Speed	Change
-	-	All home broadband	36.12	+0.01	8.25	+0.11
1	1	Virgin Media	77.21	-0.69	12.32	+0.1
2	2	Vodafone Home	37.25	-2.79	10.44	-1.05
3	3	BT	33.38	+0.85	8.12	+0.15
4	4	EE Home	27.23	+0.23	7.01	+0.42
5	5	Daisy / SSE	26	+0.22	11.33	+1.81
6	6	Sky / NOW Broadband	25.75	+0.24	6.59	+0.14
7	7	TalkTalk	23.66	-0.46	5.51	-0.06
8	8	Plusnet / John Lewis	20.63	-0.31	4.86	-0.12

Overall, the average download speeds across all fixed line providers remained stable since last month at 36.12Mbps, with upload speeds increasing by 0.11Mbps to 8.25Mbps.

Consumer mobile broadband providers

Aver	Average mobile download & upload speeds (Mbps) – December 2019						
Rank	Was	Broadband Provider	Average Download		Average Upload		
nalik	vvas	Broaubanu Provider	Speed	Change	Speed	Change	
-	-	All mobile broadband	22.6	-0.24	6.38	-0.18	
1	1	EE Mobile	27.91	-2.54	7.35	-0.02	
2	2	Vodafone Mobile	24.81	-0.13	6.64	-0.11	
3 🔺	4	O2 Mobile	19.3	+3.49	4.14	+0.08	
4 ▼	3	Three Mobile	19.11	+0.89	5.76	-0.11	

Overall, the average download speeds across all mobile broadband providers decreased by 0.24Mbps to 22.6Mbps since last month, with upload speeds decreasing by 0.18Mbps to 6.38Mbps.



Combined home and mobile broadband rankings

Average broadband download & upload speeds (Mbps) – December 2019						
Rank	Was	Droodband Drovider	Average Download		Average Upload	
nalik	was	Broadband Provider	Speed	Change	Speed	Change
-	-	All home broadband	36.12	+0.01	8.25	+0.11
-	-	All mobile broadband	22.6	-0.24	6.38	-0.18
1	1	Virgin Media	77.21	-0.69	12.32	+0.1
2	2	Vodafone Home	37.25	-2.79	10.44	-1.05
3	3	BT	33.38	+0.85	8.12	+0.15
4	4	EE Mobile	27.91	-2.54	7.35	-0.02
5	5	EE Home	27.23	+0.23	7.01	+0.42
6	6	Daisy / SSE	26	+0.22	11.33	+1.81
7	7	Sky / NOW Broadband	25.75	+0.24	6.59	+0.14
8	8	Vodafone Mobile	24.81	-0.13	6.64	-0.11
9	9	TalkTalk	23.66	-0.46	5.51	-0.06
10	10	Plusnet / John Lewis	20.63	-0.31	4.86	-0.12
11 ▲	12	O2 Mobile	19.3	+3.49	4.14	+0.08
12 ▼	11	Three Mobile	19.11	+0.89	5.76	-0.11

Overall speed performance of consumer mobile broadband is roughly comparable to that of many fixed line broadband providers. However, only 6.6% of the speed tests performed in December 2019 took place over a mobile broadband connection.

While the availability of the fastest mobile data transfer protocols varies with location, and some tests will be performed on 3G or even 2.5G GPRS connections, the same is true for fixed line broadband providers whose flagship products may not be available in rural and remote areas, or may not be adopted by consumers prefering cheaper speed-limited alternatives.



Combined UK broadband rankings by upload speed

Avera	Average broadband upload & download speeds (Mbps) – December 2019					
Rank	Was	Broadband Provider	Average Upload		Average Download	
nalik	vvas	Broauband Provider	Speed	Change	Speed	Change
-	-	All home broadband	8.25	+0.11	36.12	+0.01
-	-	All mobile broadband	6.38	-0.18	22.6	-0.24
1	1	Virgin Media	12.32	+0.1	77.21	-0.69
2 🛦	3	Daisy / SSE	11.33	+1.81	26	+0.22
3 ▼	2	Vodafone Home	10.44	-1.05	37.25	-2.79
4	4	BT	8.12	+0.15	33.38	+0.85
5	5	EE Mobile	7.35	-0.02	27.91	-2.54
6 ▲	7	EE Home	7.01	+0.42	27.23	+0.23
7 ▼	6	Vodafone Mobile	6.64	-0.11	24.81	-0.13
8	8	Sky / NOW Broadband	6.59	+0.14	25.75	+0.24
9	9	Three Mobile	5.76	-0.11	19.11	+0.89
10	10	TalkTalk	5.51	-0.06	23.66	-0.46
11	11	Plusnet / John Lewis	4.86	-0.12	20.63	-0.31
12	12	O2 Mobile	4.14	+0.08	19.3	+3.49

While most UK broadband providers place much less marketing emphasis on upload speeds, this is an increasingly important factor in broadband satisfaction. As more and more storage moves to the cloud, being unable to quickly save or sync to servers on the internet increasingly impacts the user experience in apps. This is even more important to those who work from home, or who create online video content.

In December 2019 average fixed line broadband download speed was 4.38 times faster than upload speed, while mobile broadband downloads averaged at 3.54 times the speed achieved for mobile uploads.

The rollout and increasing adoption of full fibre broadband services will see the gap between download and upload performance shrink, especially from providers offering symmetric services.



Consumer broadband download speeds - time of day

Average download speeds (Mbps) split by time of day – December 2019					
Broadband Provider	Overnight (00:00 to 07:59)	Daytime (08:00 to 17:59)	Evening (18:00 to 23:59)	Overall (00:00 to 23:59)	
All home broadband	37.9	35.45	36.79	36.12	
All mobile broadband	29.84	22.22	21.24	22.6	
Virgin Media	79.43	78.11	75.53	77.21	
Vodafone Home	35.16	38.23	36.28	37.25	
BT	36.21	33.17	33.11	33.38	
EE Mobile	39.52	26.33	28.62	27.91	
EE Home	23.65	26.74	28.68	27.23	
Sky / NOW Broadband	26.6	25.7	25.63	25.75	
TalkTalk	26.87	23.42	23.32	23.66	
Plusnet / John Lewis	21.06	20.09	21.57	20.63	
Three Mobile	26.7	19.06	17.17	19.11	

Our average speed by time of day report shows how the average broadband speed is heavily influenced by the time of day (and therefore likely level of network congestion).

Fixed line broadband advertised speeds are now based on the speed achieved by 50% of customers during peak evening hours of 8pm to 10pm.



Supplemental UK broadband providers

Average download & upload speeds (Mbps) – December 2019					
Broadband Provider	Average Download	Average Upload			
Post Office (rural/remote)	11.83	2.24			
TalkTalk Business	26.28	7.35			
Zen	33.4	11.54			
Hyperoptic	86.55	60.19			
Andrews & Arnold (AAISP)	15.77	1.18			
Virgin Media Business	89.52	21.16			
Gigaclear	109.34	90.92			
Eclipse Internet	21.05	5.93			
KCOM	79.7	26.24			
BT Wi-Fi (aka BT Fon)	8.18	3.59			
Relish	9.26	1.49			

Here we list additional fixed line broadband providers with fewer customers making use of our speed test. All providers listed have sufficient test numbers across the month to make average speeds statistically significant, but not enough tests to be split by time of day. The lower down the list, the less confident we are about the overall accuracy of the average results.

It should be noted that some of these supplemental ISPs, such as Zen, primarily supply broadband to the business market, and so may utilize technologies not available to the vast majority of home broadband users.



Expanded UK broadband download speed rankings

Av	Average download & upload speeds (Mbps) – December 2019				
Rank	Broadband Provider	Average Download	Average Upload		
1	Gigaclear	109.34	90.92		
2	Virgin Media Business	89.52	21.16		
3	Hyperoptic	86.55	60.19		
4	KCOM	79.7	26.24		
5	Virgin Media	77.21	12.32		
6	Vodafone Home	37.25	10.44		
7	Zen	33.4	11.54		
8	BT	33.38	8.12		
9	EE Mobile	27.91	7.35		
10	EE Home	27.23	7.01		
11	TalkTalk Business	26.28	7.35		
12	Daisy / SSE	26	11.33		
13	Sky / NOW Broadband	25.75	6.59		
14	Vodafone Mobile	24.81	6.64		
15	TalkTalk	23.66	5.51		
16	Eclipse Internet	21.05	5.93		
17	Plusnet / John Lewis	20.63	4.86		
18	O2 Mobile	19.3	4.14		
19	Three Mobile	19.11	5.76		
20	Andrews & Arnold (AAISP)	15.77	1.18		
21	Post Office (rural/remote)	11.83	2.24		
22	Relish	9.26	1.49		
23	BT Wi-Fi (aka BT Fon)	8.18	3.59		



Expanded UK broadband upload speed rankings

Av	Average upload & download speeds (Mbps) – December 2019				
Rank	Broadband Provider	Average Upload	Average Download		
1	Gigaclear	90.92	109.34		
2	Hyperoptic	60.19	86.55		
3	KCOM	26.24	79.7		
4	Virgin Media Business	21.16	89.52		
5	Virgin Media	12.32	77.21		
6	Zen	11.54	33.4		
7	Daisy / SSE	11.33	26		
8	Vodafone Home	10.44	37.25		
9	BT	8.12	33.38		
10	TalkTalk Business	7.35	26.28		
11	EE Mobile	7.35	27.91		
12	EE Home	7.01	27.23		
13	Vodafone Mobile	6.64	24.81		
14	Sky / NOW Broadband	6.59	25.75		
15	Eclipse Internet	5.93	21.05		
16	Three Mobile	5.76	19.11		
17	TalkTalk	5.51	23.66		
18	Plusnet / John Lewis	4.86	20.63		
19	O2 Mobile	4.14	19.3		
20	BT Wi-Fi (aka BT Fon)	3.59	8.18		
21	Post Office (rural/remote)	2.24	11.83		
22	Relish	1.49	9.26		
23	Andrews & Arnold (AAISP)	1.18	15.77		



About the Broadband.co.uk speed test results

- Our results are taken from our website users performing speed tests using our speed checker at https://www.broadband.co.uk/broadband-speedtest/
- We record hundreds of thousands of speed tests every month
- Unlike other speed test services we record the Internet Service Provider (ISP) by IP address making our ISP recording very accurate rather than relying on self selection.
 Certain ISPs resell their services as a wholesale or white label product, in these cases the wholesale ISP is matched
- We pick out the following 'big 8' fixed line ISPs for detailed reporting every month:
 - BT wholesale network (used by several suppliers outside their own low cost network areas)
 - Daisy wholesale network (used by SSE and Fleur)
 - **EE** (excluding 4G mobile broadband)
 - Plusnet wholesale network (used by John Lewis)
 - Sky (also sold as NOW Broadband)
 - TalkTalk wholesale network (used by suppliers such as Utility Warehouse, Post Office Broadband and First Utility)
 - Virgin Media
 - Vodafone
- As our test is one of the few that will run on mobile devices and tablets, we're also able to report on the following mobile broadband networks:
 - **EE** (used by Virgin Mobile, Plusnet Mobile, Asda Mobile and Phone Co-Op)
 - O2 (used by Tesco Mobile, Sky Mobile, TalkTalk Mobile and giffgaff)
 - Three (used by Superdrug Mobile, TPO Mobile and FreedomPop)
 - Vodafone (used by Talkmobile)

About Broadband.co.uk

- Our broadband price comparison is accredited by Ofcom as open, honest and transparent
- We are one of the original broadband information and comparison sites having been launched in 2004
- With millions of visitors each year we are one of the UK's leading sources of broadband information and advice
- We provide beginners guides to all areas of broadband along with detailed buyers guides to the major broadband providers, speed tester and broadband postcode lookup functionality
- We provide a free advice service where our broadband expert answers queries related to broadband, technical, comparison and related

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