



IPTV NETZTEST DE 2025

Zeitraum: 2025/02/24 - 2025/03/23 - Letzte Aktualisierung: 2025/04/04 15:43:39 - Letzte Berechnung: 2025/04/04 13:37:45

Stability

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Availability	Observations		44.780	22.400	44.800	44.800	36.880
	Packets Missing Ratio	%	0,01	0,08	0,11	0,00	0,01
	Availability Ratio	%	100,00	100,00	100,00	100,00	100,00

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Responsiveness Reference	Observations		4.277	2.202	4.455	4.397	3.633
	TCP Average RTT (Median)	ms	7	10	12	6	16
	TCP Average RTT (P90)	ms	22	11	18	12	22
	TLS Average RTT (Median)	ms	14	12	20	17	25
	TLS Average RTT (P90)	ms	30	14	27	22	31

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Responsiveness IPTV pure	Observations		3.533	2.202	4.450	4.364	3.634
	TCP Average RTT (Median)	ms	8	10	12	6	18
	TCP Average RTT (P90)	ms	22	11	19	14	23
	TLS Average RTT (Median)	ms	14	12	20	16	26
	TLS Average RTT (P90)	ms	29	13	28	23	31

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Responsiveness with Dataload and two IPTV Streams	Observations		3.605	2.190	4.454	4.343	3.619
	TCP Average RTT (Median)	ms	9	47	34	8	65
	TCP Average RTT (P90)	ms	27	48	42	16	262
	TLS Average RTT (Median)	ms	15	49	42	16	72
	TLS Average RTT (P90)	ms	34	52	51	24	268

Voice

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Voice pure	Observations		6.599	1.112	6.702	6.672	5.482
	Connect Setup Duration (Median)	s	0,12	0,31	0,52	0,29	1,18
	Connect Setup Duration (P90)	s	0,13	0,36	0,58	0,32	1,31
	MOS-LQO (Median)	#	4,47	4,47	4,46	4,46	4,47
	MOS-LQO (P10)	#	4,43	4,21	4,22	4,44	4,32
	Speech Delay (Median)	ms	72	80	89	28	85
	Speech Delay (P90)	ms	76	88	101	30	94
	Call Failure Ratio	%	0,00	0,00	0,15	0,00	0,22

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Voice with Dataload and one IPTV Stream	Observations		5.514	3.300	6.676	6.696	5.429
	Connect Setup Duration (Median)	s	0,14	0,31	0,57	0,29	1,44
	Connect Setup Duration (P90)	s	0,15	0,36	0,65	0,32	1,75
	MOS-LQO (Median)	#	4,47	4,46	4,44	4,46	4,46
	MOS-LQO (P10)	#	4,39	4,20	4,03	4,41	4,15
	Speech Delay (Median)	ms	74	79	115	29	89
	Speech Delay (P90)	ms	79	88	126	31	117
	Call Failure Ratio	%	0,00	0,00	0,24	0,00	0,35

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Voice with Dataload and two IPTV Streams	Observations		5.532	3.300	6.674	6.696	5.439
	Connect Setup Duration (Median)	s	0,14	0,32	0,56	0,29	1,45
	Connect Setup Duration (P90)	s	0,15	0,36	0,66	0,33	1,75
	MOS-LQO (Median)	#	4,47	4,47	4,27	4,46	4,46
	MOS-LQO (P10)	#	4,39	4,24	3,74	4,38	4,15
	Speech Delay (Median)	ms	74	79	117	29	90
	Speech Delay (P90)	ms	78	85	128	32	117
	Call Failure Ratio	%	0,00	0,00	0,18	0,00	0,35

Highspeed Internet

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Download pure	Observations		2.089	1.116	2.223	2.174	2.231
	HTTP Download Throughput < 90 % of Bandwidth	%	0,00	40,14	17,18	0,00	0,00
	HTTP Download Failure Ratio	%	0,00	0,00	0,00	0,00	0,00

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Download with Dataload and one IPTV Stream	Observations		1.844	1.098	2.239	2.232	1.821
	HTTP Download Throughput < 80 % of Bandwidth	%	0,00	50,05	13,90	0,00	0,00
	HTTP Download Failure Ratio	%	0,00	0,82	0,04	0,00	0,00

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Download with Dataload and two IPTV Streams	Observations		1.848	1.100	2.235	2.232	1.822
	HTTP Download Throughput < 75 % of Bandwidth	%	0,00	49,82	13,92	0,00	0,00
	HTTP Download Failure Ratio	%	0,05	0,00	0,04	0,00	0,05

IPTV

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Advanced zapping	Observations (zapping)		1.853	611	974	2.232	1.826
	EPG-Zapping Duration (Median)	s	0,54	1,15	1,84	0,48	1,57
	EPG-Zapping Duration (P90)	s	0,62	1,20	5,20	0,60	2,16
	EPG-Zapping Failure Ratio	%	1,13	5,24	14,07	0,00	3,94

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
IPTV pure	Observations (startup)		1.855	1.099	2.230	2.232	1.826
	Startup Duration (Median)	s	1,53	0,76	0,75	0,89	1,99
	Startup Duration (P90)	s	2,14	0,84	1,42	0,99	33,55
	Startup Failure Ratio	%	0,38	0,55	0,94	0,00	16,43
	Observations (zapping)		7.390	4.401	8.900	8.928	7.064
	Zapping Duration (Median)	s	1,05	0,67	1,30	0,41	1,26
	Zapping Duration (P90)	s	1,14	0,74	1,73	0,60	3,23
	Zapping Failure Ratio	%	0,28	1,25	1,93	0,00	10,23
	Observations		7.365	4.354	8.771	8.888	6.608
	MOS (Median)	#	4,45	4,47	4,45	4,45	4,44
	MOS (P10)	#	4,44	4,46	4,38	4,44	4,43
	IPTV Quality Failure Ratio	%	0,00	0,00	0,00	0,00	0,00

Test Case	KPI	Unit	waipu.tv	zattoo
IPTV pure	Observations (startup)		1.109	1.108
	Startup Duration (Median)	s	1,32	1,05
	Startup Duration (P90)	s	1,62	1,21
	Startup Failure Ratio	%	1,80	2,35
	Observations (zapping)		4.425	4.435
	Zapping Duration (Median)	s	1,20	1,26
	Zapping Duration (P90)	s	1,46	1,56
	Zapping Failure Ratio	%	2,98	4,58
	Observations		4.318	4.270
	MOS (Median)	#	4,44	4,37
	MOS (P10)	#	4,42	4,33
	IPTV Quality Failure Ratio	%	0,00	0,00

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
One IPTV Stream with Dataload	Observations (startup)		1.853	1.067	2.207	2.232	1.826
	Startup Duration (Median)	s	1,69	1,20	2,24	0,90	3,77
	Startup Duration (P90)	s	2,26	2,37	3,77	1,00	20,81
	Startup Failure Ratio	%	0,54	0,94	0,95	0,00	17,91
	Observations (zapping)		7.396	4.372	8.887	8.928	7.068
	Zapping Duration (Median)	s	1,15	1,81	2,49	0,43	2,54
	Zapping Duration (P90)	s	1,30	2,46	3,73	0,60	6,33
	Zapping Failure Ratio	%	0,47	3,52	2,75	0,00	10,05
	Observations		7.296	4.290	8.760	8.846	6.119
	MOS (Median)	#	4,44	4,45	4,40	4,45	4,42
	MOS (P10)	#	4,42	4,41	4,27	4,44	4,33
	IPTV Quality Failure Ratio	%	0,00	0,00	0,00	0,00	0,00

Test Case	KPI	Unit	waipu.tv	zattoo
One IPTV Stream with Dataload	Observations (startup)		1.073	1.059
	Startup Duration (Median)	s	1,92	1,64
	Startup Duration (P90)	s	3,86	3,02
	Startup Failure Ratio	%	2,14	2,36
	Observations (zapping)		4.331	4.302
	Zapping Duration (Median)	s	1,79	1,88
	Zapping Duration (P90)	s	2,27	2,90
	Zapping Failure Ratio	%	3,88	5,25
	Observations		4.232	4.163
	MOS (Median)	#	4,41	4,32
	MOS (P10)	#	4,37	3,85
	IPTV Quality Failure Ratio	%	0,00	0,00

Test Case	KPI	Unit	1&1	Deutsche Glasfaser	O2 Telefónica	Telekom	vodafone
Two IPTV Streams with Dataload	Observations (startup)		1.856	1.042	2.196	2.232	1.826
	Startup Duration (Median)	s	1,80	1,71	1,25	0,91	4,20
	Startup Duration (P90)	s	2,27	2,37	3,22	1,01	32,62
	Startup Failure Ratio	%	0,54	0,96	1,18	0,00	22,02
	Observations (zapping)		7.400	4.337	8.863	8.928	7.004
	Zapping Duration (Median)	s	1,15	1,74	2,14	0,43	2,54
	Zapping Duration (P90)	s	1,29	2,47	2,89	0,61	6,34
	Zapping Failure Ratio	%	0,46	4,77	2,82	0,00	13,04
	Observations		7.296	4.204	8.655	8.824	5.909
	MOS (Median)	#	4,44	4,45	4,40	4,45	4,42
	MOS (P10)	#	4,42	4,41	4,24	4,44	4,34
	IPTV Quality Failure Ratio	%	0,00	0,00	0,00	0,00	0,00