

UTP Q1 2016

U.S. EQUITIES SECURITIES INFORMATION PROCESSOR (UTP SIP) KEY QUARTERLY OPERATING METRICS OF TAPE C

The statistics below represent Population, Quote and Trade metrics as provided by the Securities Information Processors (SIP) and the SIP Administrator responsible for disseminating UTP Level 1 trade and quote information in NASDAQ ("Tape C") listed securities traded on participating U.S. exchanges.¹ The UTP Plan for Tape C has provided this information as a means to increase transparency related to the activities of the U.S. consolidated tape plans.

TAPE C SUBSCRIBER/HOUSEHOLD METRICS

Quarter	Capped Non-Professional Subscribers (Quarter-End)	Quote Usage (Total; Excludes Capped Subscribers)	Professional Subscribers (Quarter-End)	Number Of Households (Quarter-End)
1Q 2010	1,867,476	589,854,887	371,999	142,518,265
2Q 2010	2,225,816	585,618,482	373,964	145,233,440
3Q 2010	1,871,591	515,554,285	369,427	121,180,913
4Q 2010	2,101,892	541,201,678	370,622	121,180,913
1Q 2011	2,097,404	588,678,006	369,139	123,921,777
2Q 2011	2,209,787	598,366,941	369,985	125,410,554
3Q 2011	2,267,851	576,458,825	382,862	126,970,026
4Q 2011	2,048,840	531,356,941	375,477	127,737,134
1Q 2012	2,233,422	562,230,890	362,014	128,942,699
2Q 2012	2,191,061	588,879,924	357,895	135,582,774
3Q 2012	2,026,201	578,407,798	351,106	136,634,339
4Q 2012	2,075,417	582,655,127	335,969	136,833,084
1Q 2013	2,279,254	644,658,271	328,894	139,607,452
2Q 2013	2,472,434	677,965,203	324,772	138,847,276
3Q 2013	2,381,594	646,010,489	295,192	146,896,684
4Q 2013	2,691,760	671,811,184	292,417	146,299,313
1Q 2014	2,879,075	666,202,789	285,913	147,003,114
2Q 2014	2,671,920	645,106,685	259,728	148,532,450
3Q 2014	2,663,160	611,001,796	256,986	149,457,746
4Q 2014	2,562,470	582,930,471	256,221	148,847,126
1Q 2015*	2,731,280	618,418,754	253,034	145,667,176
2Q 2015	2,777,403	536,965,855	247,432	153,762,745
3Q 2015	2,903,175	516,227,827	249,066	153,347,824
4Q 2015	2,759,717	537,331,773	262,065	152,049,960
1Q 2016	2,726,720	485,909,937	264,939	152,005,840

Definitions

- 1) Capped non-professionals include data usage by those defined pursuant to the Non-Professional Subscriber policy paying the flat per subscriber rate. Includes non-professionals paying on a per-quote basis that are capped at \$1.00/month.
 - 2) Quotes include data usage for those professionals that choose to report on a per-quote-packet basis as well as non-professionals that are not capped at \$1.00/month.
 - 3) Professional subscribers are deemed to be those that do not meet the criteria defined pursuant to the Non-Professional Subscriber policy paying on a per device basis.
 - 4) Number of households provides an estimate of households reached based on vendor reporting of television broadcast data.
- * Numbers have been slightly adjusted to reflect correct reporting.

¹ CURRENT MEMBERS OF THE TAPE PLANS INCLUDE: BATS EXCHANGE, CHICAGO BOARD OPTIONS EXCHANGE, CHICAGO STOCK EXCHANGE, DIRECT EDGE, FINRA, INTERNATIONAL SECURITIES EXCHANGE, NASDAQ BX, NASDAQ PHLX, NATIONAL STOCK EXCHANGE, NYSE, NYSE AMEX, NYSE ARCA, AND THE NASDAQ STOCK MARKET. © COPYRIGHT 2014, THE NASDAQ OMX GROUP, INC. ALL RIGHTS RESERVED. Q14-1071. 04-14

TAPE C QUOTE METRICS

Quarter	System Availability (1)	Peak Messages Per Second (thousands)	Capacity Messages Per Second (thousands)	Capacity vs Peak Ratio	Peak Messages Per 100 Milliseconds (thousands) (2)	Capacity Messages Per 100 Milliseconds (thousands)	Capacity vs Peak Ratio	Peak Transactions Per Day (millions)	Capacity Transactions Per Day (millions)	Average Latency (ms)	Median Latency (ms)	10th Percentile Latency (ms)	90th Percentile Latency (ms)	99th Percentile Latency (ms)
1Q10	100.00%	82.4	108.4	1.3:1	n/a	n/a	n/a	152.2	413.5	5.42	n/a	n/a	n/a	n/a
2Q10	100.00%	97.5	175.9	1.8:1	n/a	n/a	n/a	232.0	500.0	5.67	n/a	n/a	n/a	n/a
3Q10	100.00%	108.9	175.9	1.6:1	n/a	n/a	n/a	203.7	500.0	5.96	n/a	n/a	n/a	n/a
4Q10	100.00%	119.3	175.9	1.5:1	n/a	n/a	n/a	145.5	500.0	5.24	n/a	n/a	n/a	n/a
1Q11	100.00%	143.1	180.3	1.3:1	n/a	n/a	n/a	233.7	500.0	4.64	n/a	n/a	n/a	n/a
2Q11	100.00%	138.3	180.3	1.3:1	n/a	n/a	n/a	193.4	500.0	4.98	n/a	n/a	n/a	n/a
3Q11	99.99%	156.2	415.0	2.7:1	n/a	n/a	n/a	454.0	500.0	4.87	n/a	n/a	n/a	n/a
4Q11	99.97%	171.8	458.0	2.7:1	n/a	n/a	n/a	341.0	500.0	2.67	n/a	n/a	n/a	n/a
1Q12	99.99%	156.1	458.0	2.9:1	n/a	45.8	n/a	173.0	500.0	1.84	n/a	n/a	n/a	n/a
2Q12	99.99%	175.8	458.0	2.6:1	n/a	45.8	n/a	182.5	500.0	1.51	n/a	n/a	n/a	n/a
3Q12	100.00%	210.0	480.0	2.3:1	n/a	48.0	n/a	146.8	500.0	1.48	n/a	n/a	n/a	n/a
4Q12	100.00%	184.0	480.0	2.6:1	n/a	48.0	n/a	134.0	500.0	1.57	n/a	n/a	n/a	n/a
1Q13	99.97%	201.3	520.0	2.6:1	n/a	52.0	n/a	136.5	500.0	1.45	1.26	n/a	2.28	n/a
2Q13	100.00%	217.5	520.0	2.4:1	n/a	52.0	n/a	173.4	500.0	1.30	1.18	n/a	2.14	n/a
3Q13	99.94%	216.3	520.0	2.4:1	38.9	52.0	1.3:1	131.6	500.0	1.24	1.14	n/a	1.60	n/a
4Q13	100.00%	221.3	520.0	2.3:1	46.1	52.0	1.1:1	156.6	500.0	1.26	1.15	n/a	1.70	n/a
1Q14	100.00%	275.6	707.3	2.6:1	51.5	70.7	1.4:1	185.8	868.1	1.20	1.08	n/a	1.62	n/a
2Q14	100.00%	268.6	707.3	2.6:1	51.2	70.7	1.4:1	237.3	868.1	0.69	0.48	n/a	0.70	n/a
3Q14	99.98%	308.2	707.3	2.3:1	49.8	83.8	1.7:1	179.0	868.1	0.59	0.43	n/a	0.79	n/a
4Q14	100.00%	617.0	707.3	1.1:1	95.4	83.8	0.9:1	359.0	868.1	0.55	0.43	n/a	0.66	n/a
1Q15	100.00%	421.3	1,244.6	3.0:1	85.5	166.9	2.0:1	231.2	868.1	0.50	0.44	n/a	0.62	n/a
2Q15	100.00%	233.2	1,244.6	5.3:1	48.0	215.0	4.5:1	178.2	868.1	0.65	0.44	n/a	0.69	n/a
3Q15	100.00%	214.4	1,244.6	5.8:1	37.1	215.0	5.8:1	329.5	2,285.8	0.80	0.45	n/a	0.79	n/a
4Q15	100.00%	271.6	1,244.6	4.6:1	41.0	215.0	5.2:1	239.6	2,285.8	0.81	0.45	n/a	0.81	n/a
1Q16	100.00%	249.5	1,244.6	5.0:1	60.1	215.0	3.6:1	366.2	2,285.8	0.92	0.47	0.39	1.04	9.80

(1) Service level guidelines: (A) 99.98% system availability; (B) 10 minute recovery time for full system failures; (C) Operations production support 24x6 in primary and backup data center and test support provided on Saturdays.

(2) Beginning 1Q14, capacity planning interval changed from 1-second to 100-milliseconds.

(3) Beginning Q12016 10th and 99th percentile measurements have been included.

TAPE C TRADE METRICS

Quarter	System Availability (1)	Peak Messages Per Second (thousands)	Capacity Messages Per Second (thousands)	Capacity vs Peak Ratio	Peak Messages Per 100 Milliseconds (thousands) (2)	Capacity Messages Per 100 Milliseconds (thousands)	Capacity vs Peak Ratio	Peak Transactions Per Day (millions)	Capacity Transactions Per Day (millions)	Average Latency (ms)	Median Latency (ms)	10th Percentile Latency (ms)	90th Percentile Latency (ms)	99th Percentile Latency (ms)
1Q10	100.00%	18.1	18.7	1.0:1	n/a	n/a	n/a	10.7	76.0	6.39	n/a	n/a	n/a	n/a
2Q10	100.00%	21.6	18.7	0.9:1	n/a	n/a	n/a	16.6	125.0	6.35	n/a	n/a	n/a	n/a
3Q10	100.00%	29.2	36.4	1.2:1	n/a	n/a	n/a	11.2	125.0	6.40	n/a	n/a	n/a	n/a
4Q10	100.00%	30.3	36.4	1.2:1	n/a	n/a	n/a	9.3	125.0	5.91	n/a	n/a	n/a	n/a
1Q11	100.00%	49.8	74.6	1.5:1	n/a	n/a	n/a	11.2	125.0	6.37	n/a	n/a	n/a	n/a
2Q11	100.00%	48.1	74.6	1.6:1	n/a	n/a	n/a	9.4	125.0	4.24	n/a	n/a	n/a	n/a
3Q11	100.00%	51.8	74.6	1.4:1	n/a	n/a	n/a	18.3	125.0	4.49	n/a	n/a	n/a	n/a
4Q11	100.00%	40.5	74.6	1.8:1	n/a	n/a	n/a	13.2	125.0	7.05	n/a	n/a	n/a	n/a
1Q12	100.00%	38.0	156.0	4.1:1	n/a	15.6	n/a	8.8	125.0	7.60	n/a	n/a	n/a	n/a
2Q12	99.97%	66.9	156.0	2.3:1	n/a	15.6	n/a	10.4	125.0	4.02	n/a	n/a	n/a	n/a
3Q12	99.99%	51.7	204.0	3.9:1	n/a	20.4	n/a	8.6	125.0	1.67	n/a	n/a	n/a	n/a
4Q12	100.00%	48.3	204.0	4.2:1	n/a	20.4	n/a	8.7	125.0	1.63	n/a	n/a	n/a	n/a
1Q13	99.97%	52.2	235.0	4.5:1	n/a	23.5	n/a	8.6	125.0	1.64	1.49	n/a	2.44	n/a
2Q13	100.00%	53.0	235.0	4.4:1	n/a	23.5	n/a	9.1	125.0	1.36	1.19	n/a	1.88	n/a
3Q13	99.94%	56.3	235.0	4.2:1	11.8	23.5	2.0:1	9.7	125.0	1.27	1.22	n/a	1.62	n/a
4Q13	100.00%	71.0	235.0	3.3:1	14.2	23.5	1.7:1	12.4	125.0	1.36	1.22	n/a	1.62	n/a
1Q14	100.00%	86.0	393.6	4.6:1	19.3	39.4	2.0:1	15.4	222.4	1.32	1.25	n/a	1.67	n/a
2Q14	100.00%	97.2	393.6	4.0:1	20.5	39.4	1.9:1	15.6	222.4	0.82	0.54	n/a	0.74	n/a
3Q14	99.98%	93.5	393.6	4.2:1	17.6	48.5	2.8:1	13.4	222.4	0.59	0.49	n/a	0.68	n/a
4Q14	99.99%	102.7	393.6	3.8:1	19.4	48.5	2.5:1	19.0	222.4	0.59	0.49	n/a	0.67	n/a
1Q15	100.00%	95.0	613.7	6.5:1	20.1	68.7	3.4:1	13.9	222.4	0.53	0.45	n/a	0.60	n/a
2Q15	100.00%	89.3	613.7	6.9:1	22.8	132.8	5.8:1	14.5	222.4	0.54	0.46	n/a	0.62	n/a
3Q15	100.00%	79.7	613.7	7.7:1	16.1	132.8	8.2:1	23.4	232.0	0.58	0.47	n/a	0.64	n/a
4Q15	100.00%	99.5	613.7	6.2:1	18.6	132.8	7.1:1	15.4	232.0	0.62	0.47	n/a	0.66	n/a
1Q16	100.00%	75.3	613.7	8.2:1	19.4	132.8	6.8:1	21.0	232.0	0.77	0.49	0.41	0.76	6.48

(1) Service level guidelines: (A) 99.98% system availability; (B) 10 minute recovery time for full system failures; (C) Operations production support 24x6 in primary and backup data center and test support provided on Saturdays.

(2) Beginning 1Q14, capacity planning interval changed from 1-second to 100-milliseconds.

(3) Beginning Q12016 10th and 99th percentile measurements have been included.