



Consolidated Tape Association

Key Operating Metrics of Tape A&B U.S. Equities Securities Information Processor (CTA SIP)

| CQS: Quote Feed (Tape A&B) | | | | | | | | | | | | | | | | |
|----------------------------|-------------------------|--------------------------------------|---|------------------------|--|--|------------------------|---|---|--------------------------------------|--|--------------------------|---------------------|------------------------------|------------------------------|------------------------------|
| Quarter | System Availability (1) | Peak Messages Per Second (thousands) | Capacity Messages Per Second (millions) | Capacity vs Peak Ratio | Peak Messages Per 100 Milliseconds (thousands) | Capacity Messages Per 100 Milliseconds (thousands) | Capacity vs Peak Ratio | Peak Messages Per 10 Milliseconds (thousands) | Peak Messages Per 1 Millisecond (thousands) | Peak Transactions Per Day (millions) | Capacity Transactions Per Day (billions) | Average Latency (us) (2) | Median Latency (us) | 10th Percentile Latency (us) | 90th Percentile Latency (us) | 99th Percentile Latency (us) |
| 1Q23 | 100.00% | 1106 | n/a | n/a | 278.7 | 950 | 3.4:1 | 58.0 | 7.8 | 2500 | 30 | 18.0 | 18.0 | 15.5 | 20.7 | 25.5 |
| Jan'23 | 100.00% | 1026 | n/a | n/a | 259.0 | 950 | 3.7:1 | 58.0 | 7.6 | 1569 | 30 | 18.0 | 18.0 | 15.5 | 20.7 | 25.2 |
| Feb'23 | 100.00% | 1101 | n/a | n/a | 278.7 | 950 | 3.4:1 | 58.0 | 7.8 | 1686 | 30 | 18.0 | 17.8 | 15.5 | 20.7 | 25.5 |
| Mar'23 | 100.00% | 1106 | n/a | n/a | 277.0 | 950 | 3.4:1 | 57.2 | 7.6 | 2500 | 30 | 18.1 | 18.0 | 15.5 | 20.7 | 25.7 |
| 2Q23 | 99.986% | 986 | n/a | n/a | 266.4 | 950 | 3.6:1 | 60.7 | 8.1 | 1465 | 30 | 18.0 | 17.8 | 15.3 | 20.7 | 25.5 |
| Apr'23 | 100.00% | 776 | n/a | n/a | 266.4 | 950 | 3.6:1 | 59.1 | 7.8 | 1180 | 30 | 18.0 | 17.8 | 15.3 | 20.7 | 25.5 |
| May'23 | 100.00% | 986 | n/a | n/a | 261.9 | 950 | 3.6:1 | 60.7 | 8.1 | 1465 | 30 | 18.0 | 17.8 | 15.3 | 20.7 | 25.7 |
| Jun'23 | 99.96% | 681 | n/a | n/a | 247.0 | 950 | 3.8:1 | 59.7 | 8.0 | 1302 | 30 | 17.8 | 17.6 | 15.2 | 20.3 | 25.0 |
| 3Q23 | 100.00% | 791 | n/a | n/a | 257.6 | 950 | 3.7:1 | 60.2 | 8.2 | 1450 | 30 | 17.8 | 17.6 | 15.2 | 20.3 | 24.5 |
| Jul'23 | 100.00% | 771 | n/a | n/a | 253.5 | 950 | 3.7:1 | 60.2 | 7.9 | 1241 | 30 | 17.6 | 17.6 | 15.2 | 20.2 | 24.2 |
| Aug'23 | 100.00% | 725 | n/a | n/a | 256.0 | 950 | 3.7:1 | 59.9 | 8.1 | 1450 | 30 | 17.8 | 17.6 | 15.2 | 20.3 | 25.0 |
| Sep'23 | 100.00% | 791 | n/a | n/a | 257.6 | 950 | 3.7:1 | 60.1 | 8.2 | 1365 | 30 | 17.8 | 17.6 | 15.2 | 20.3 | 24.7 |
| 4Q23 | 100.00% | 951 | n/a | n/a | 311.1 | 950 | 3.1:1 | 70.2 | 8.7 | 1878 | 30 | 17.8 | 17.6 | 15.2 | 20.3 | 25.0 |
| Oct'23 | 100.00% | 943 | n/a | n/a | 311.1 | 950 | 3.1:1 | 66.3 | 8.7 | 1878 | 30 | 17.9 | 17.6 | 15.2 | 20.5 | 26.1 |
| Nov'23 | 100.00% | 951 | n/a | n/a | 302.1 | 950 | 3.1:1 | 64.4 | 8.5 | 1466 | 30 | 17.7 | 17.6 | 15.2 | 20.3 | 24.7 |
| Dec'23 | 100.00% | 795 | n/a | n/a | 288.6 | 950 | 3.3:1 | 70.2 | 8.7 | 1556 | 30 | 17.7 | 17.6 | 15.2 | 20.3 | 24.7 |
| 1Q24 | 100.00% | 960 | n/a | n/a | 324.5 | 950 | 2.9:1 | 70.0 | 8.7 | 1679 | 30 | 18.2 | 18.2 | 15.8 | 20.9 | 25.5 |
| Jan'24 | 100.00% | 928 | n/a | n/a | 324.5 | 950 | 2.9:1 | 70.0 | 8.6 | 1679 | 30 | 17.9 | 17.6 | 15.2 | 20.3 | 25.2 |
| Feb'24 | 100.00% | 960 | n/a | n/a | 286.3 | 950 | 3.3:1 | 67.7 | 8.7 | 1566 | 30 | 18.4 | 18.2 | 15.8 | 20.9 | 25.6 |
| Mar'24 | 100.00% | 858 | n/a | n/a | 296.5 | 950 | 3.2:1 | 66.4 | 8.7 | 1542 | 30 | 18.4 | 18.2 | 15.8 | 20.9 | 25.5 |
| 2Q24 | 99.998% | 898 | n/a | n/a | 294.4 | 950 | 3.2:1 | 65.2 | 8.4 | 1621 | 30 | 18.6 | 18.5 | 15.9 | 21.3 | 26.0 |
| Apr'24 | 100.00% | 898 | n/a | n/a | 294.4 | 950 | 3.2:1 | 65.2 | 8.4 | 1621 | 30 | 18.6 | 18.3 | 15.9 | 21.3 | 26.8 |
| May'24 | 100.00% | 857 | n/a | n/a | 262.5 | 950 | 3.6:1 | 54.0 | 7.7 | 1491 | 30 | 18.6 | 18.5 | 15.9 | 21.1 | 25.7 |
| Jun'24 | 99.992% | 709 | n/a | n/a | 243.6 | 950 | 3.9:1 | 52.0 | 7.5 | 1196 | 30 | 18.6 | 18.5 | 15.9 | 21.1 | 25.5 |
| 3Q24 | 100.00% | 940 | n/a | n/a | 261.6 | 950 | 3.6:1 | 54.9 | 7.8 | 2270 | 30 | 18.6 | 18.5 | 15.9 | 21.3 | 25.7 |
| Jul'24 | 100.00% | 643 | n/a | n/a | 224.3 | 950 | 4.2:1 | 52.0 | 7.7 | 1563 | 30 | 18.5 | 18.5 | 15.9 | 21.1 | 25.5 |
| Aug'24 | 100.00% | 820 | n/a | n/a | 261.6 | 950 | 3.6:1 | 54.9 | 7.8 | 2270 | 30 | 18.6 | 18.5 | 15.9 | 21.3 | 25.7 |
| Sep'24 | 100.00% | 940 | n/a | n/a | 258.7 | 950 | 3.7:1 | 53.8 | 7.5 | 1556 | 30 | 18.6 | 18.5 | 15.9 | 21.3 | 26.0 |
| 4Q24 | 100.00% | 885 | n/a | n/a | 274.7 | 950 | 3.5:1 | 54.4 | 7.7 | 1609 | 30 | 18.6 | 18.5 | 15.9 | 21.3 | 25.9 |
| Oct'24 | 100.00% | 870 | n/a | n/a | 274.7 | 950 | 3.5:1 | 54.4 | 7.7 | 1606 | 30 | 18.6 | 18.5 | 15.9 | 21.1 | 25.7 |
| Nov'24 | 100.00% | 885 | n/a | n/a | 238.0 | 950 | 4.0:1 | 51.5 | 7.0 | 1609 | 30 | 18.6 | 18.5 | 15.9 | 21.3 | 26.0 |
| Dec'24 | 100.00% | 793 | n/a | n/a | 249.1 | 950 | 3.8:1 | 52.4 | 7.1 | 1587 | 30 | 18.7 | 18.5 | 15.9 | 21.3 | 26.8 |
| 1Q25 | | | | | | | | | | | | | | | | |
| Jan'25 | 100.00% | 813 | n/a | n/a | 261.8 | 950 | 3.6:1 | 53.9 | 7.1 | 1650 | 30 | 18.9 | 18.5 | 15.9 | 21.5 | 28.9 |

(1) Service level guidelines: (A) 99.98% system availability; (B) 10 minute recovery time for full system failures; (C) Operations production support 24x5 in primary and backup data center and test support provided on Tuesdays, Thursdays, and Saturdays.
 (2) Message latency is measured beginning with the time-stamp taken as an inbound Participant message arrives at the network entrance to the CTS/CQS environment, through processing by the system into a consolidated message for Data Recipients, to the time-stamp taken as the outbound message arrives at the network exit from the environment. Latency is represented in milliseconds.

| CTS: Trade Feed (Tape A&B) | | | | | | | | | | | | | | | | |
|----------------------------|-------------------------|--------------------------------------|--|------------------------|--|--|------------------------|---|---|--------------------------------------|--|---------------------|----------------|-------------------------|-------------------------|-------------------------|
| Quarter | System Availability (1) | Peak Messages Per Second (thousands) | Capacity Messages Per Second (thousands) | Capacity vs Peak Ratio | Peak Messages Per 100 Milliseconds (thousands) | Capacity Messages Per 100 Milliseconds (thousands) | Capacity vs Peak Ratio | Peak Messages Per 10 Milliseconds (thousands) | Peak Messages Per 1 Millisecond (thousands) | Peak Transactions Per Day (millions) | Capacity Transactions Per Day (millions) | Average Latency (2) | Median Latency | 10th Percentile Latency | 90th Percentile Latency | 99th Percentile Latency |
| 1Q23 | 100.00% | 151.1 | n/a | n/a | 62.4 | 350 | 5.6:1 | 21.5 | 3.9 | 97.5 | 720 | 20.0 | 19.5 | 16.4 | 23.3 | 31.1 |
| Jan'23 | 100.00% | 131.9 | n/a | n/a | 45.9 | 350 | 7.6:1 | 21.5 | 3.9 | 67.5 | 720 | 20.1 | 19.5 | 16.6 | 23.5 | 30.5 |
| Feb'23 | 100.00% | 151.1 | n/a | n/a | 51.9 | 350 | 6.7:1 | 18.3 | 3.6 | 79.7 | 720 | 20.2 | 19.5 | 16.6 | 23.3 | 31.1 |
| Mar'23 | 100.00% | 136.5 | n/a | n/a | 62.4 | 350 | 5.6:1 | 20.9 | 3.8 | 97.5 | 720 | 19.8 | 18.5 | 16.1 | 22.4 | 32.4 |
| 2Q23 | 99.991% | 120.2 | n/a | n/a | 64.8 | 350 | 5.4:1 | 26.3 | 4.3 | 76.0 | 720 | 20.1 | 18.3 | 15.9 | 22.2 | 31.7 |
| Apr'23 | 100.00% | 87.4 | n/a | n/a | 56.3 | 350 | 6.2:1 | 24.3 | 4.0 | 68.1 | 720 | 20.1 | 18.5 | 15.9 | 22.4 | 31.4 |
| May'23 | 100.00% | 120.2 | n/a | n/a | 64.8 | 350 | 5.4:1 | 23.5 | 4.3 | 76.0 | 720 | 20.8 | 18.5 | 15.9 | 22.4 | 33.5 |
| Jun'23 | 99.97% | 116.0 | n/a | n/a | 62.5 | 350 | 5.6:1 | 26.3 | 4.2 | 73.2 | 720 | 19.3 | 18.2 | 15.8 | 21.7 | 30.2 |
| 3Q23 | 100.00% | 106.9 | n/a | n/a | 65.8 | 350 | 5.3:1 | 25.8 | 4.4 | 73.6 | 720 | 19.6 | 18.2 | 15.8 | 21.5 | 29.9 |
| Jul'23 | 100.00% | 106.9 | n/a | n/a | 52.2 | 350 | 6.7:1 | 25.8 | 4.4 | 73.6 | 720 | 19.1 | 18.0 | 15.8 | 21.5 | 29.4 |
| Aug'23 | 100.00% | 84.8 | n/a | n/a | 50.6 | 350 | 6.9:1 | 23.8 | 4.2 | 72.6 | 720 | 20.2 | 18.2 | 15.9 | 21.7 | 29.9 |
| Sep'23 | 100.00% | 91.6 | n/a | n/a | 65.8 | 350 | 5.3:1 | 25.5 | 4.3 | 70.4 | 720 | 19.3 | 18.2 | 15.9 | 21.7 | 29.7 |
| 4Q23 | 100.00% | 114.2 | n/a | n/a | 61.1 | 350 | 5.7:1 | 27.9 | 4.4 | 87.1 | 720 | 19.9 | 18.2 | 15.9 | 21.7 | 30.5 |
| Oct'23 | 100.00% | 107.3 | n/a | n/a | 53.8 | 350 | 6.5:1 | 23.2 | 4.2 | 74.2 | 720 | 19.7 | 18.2 | 15.9 | 21.9 | 31.3 |
| Nov'23 | 100.00% | 114.2 | n/a | n/a | 61.1 | 350 | 5.7:1 | 27.9 | 4.4 | 75.6 | 720 | 19.9 | 18.2 | 15.9 | 21.7 | 29.9 |
| Dec'23 | 100.00% | 100.8 | n/a | n/a | 54.7 | 350 | 6.4:1 | 22.0 | 4.0 | 87.1 | 720 | 19.7 | 18.2 | 15.9 | 21.7 | 30.0 |
| 1Q24 | 100.00% | 125.2 | n/a | n/a | 56.1 | 350 | 6.2:1 | 27.1 | 4.4 | 77.0 | 720 | 20.5 | 18.7 | 16.4 | 22.2 | 31.4 |
| Jan'24 | 100.00% | 88.6 | n/a | n/a | 48.9 | 350 | 7.2:1 | 27.1 | 4.2 | 75.3 | 720 | 20.5 | 18.3 | 15.9 | 21.9 | 31.4 |
| Feb'24 | 100.00% | 125.2 | n/a | n/a | 54.2 | 350 | 6.5:1 | 25.7 | 4.4 | 77.0 | 720 | 20.7 | 18.7 | 16.6 | 22.4 | 31.3 |
| Mar'24 | 100.00% | 103.1 | n/a | n/a | 56.1 | 350 | 6.2:1 | 25.1 | 4.1 | 74.5 | 720 | 20.2 | 18.7 | 16.4 | 22.4 | 31.4 |
| 2Q24 | 99.998% | 122.3 | n/a | n/a | 81.1 | 350 | 4.3:1 | 23.0 | 3.7 | 78.4 | 720 | 19.7 | 18.9 | 16.6 | 22.6 | 29.9 |
| Apr'24 | 100.00% | 118.8 | n/a | n/a | 48.2 | 350 | 7.3:1 | 19.8 | 3.7 | 74.4 | 720 | 20.1 | 18.9 | 16.6 | 22.4 | 30.6 |
| May'24 | 100.00% | 89.8 | n/a | n/a | 49.4 | 350 | 7.1:1 | 20.3 | 3.6 | 78.4 | 720 | 19.5 | 18.9 | 16.6 | 22.6 | 29.9 |
| Jun'24 | 99.992% | 122.3 | n/a | n/a | 81.1 | 350 | 4.3:1 | 23.0 | 3.1 | 73.9 | 720 | 19.4 | 18.9 | 16.6 | 22.4 | 29.3 |
| 3Q24 | 99.999% | 106.8 | n/a | n/a | 51.4 | 350 | 6.8:1 | 25.0 | 4.2 | 96.7 | 720 | 19.7 | 18.9 | 16.6 | 22.6 | 29.6 |
| Jul'24 | 100.00% | 86.0 | n/a | n/a | 47.4 | 350 | 7.4:1 | 25.0 | 4.2 | 76.4 | 720 | 19.8 | 18.9 | 16.6 | 22.6 | 29.6 |
| Aug'24 | 100.00% | 94.1 | n/a | n/a | 40.7 | 350 | 8.6:1 | 17.8 | 3.4 | 96.7 | 720 | 19.6 | 18.9 | 16.6 | 22.6 | 29.6 |
| Sep'24 | 99.999% | 106.8 | n/a | n/a | 51.4 | 350 | 6.8:1 | 16.9 | 3.4 | 74.3 | 720 | 19.6 | 18.9 | 16.6 | 22.6 | 29.9 |
| 4Q24 | 100.00% | 101.7 | n/a | n/a | 58.5 | 350 | 6.0:1 | 16.1 | 3.5 | 98.7 | 720 | 19.6 | 18.7 | 16.6 | 22.6 | 29.9 |
| Oct'24 | 100.00% | 82.6 | n/a | n/a | 42.1 | 350 | 8.3:1 | 15.1 | 3.5 | 76.0 | 720 | 19.7 | 18.9 | 16.6 | 22.6 | 29.9 |
| Nov'24 | 100.00% | 97.9 | n/a | n/a | 34.3 | 350 | 10.2:1 | 13.3 | 3.3 | 98.7 | 720 | 19.6 | 18.7 | 16.6 | 22.4 | 29.6 |
| Dec'24 | 100.00% | 101.7 | n/a | n/a | 58.5 | 350 | 6.0:1 | 16.1 | 3.3 | 84.7 | 720 | 19.5 | 18.7 | 16.4 | 22.4 | 29.9 |
| 1Q25 | | | | | | | | | | | | | | | | |
| Jan'25 | 100.00% | 87.1 | n/a | n/a | 40.8 | 350 | 8.6:1 | 12.4 | 3.0 | 87.4 | 720 | 19.5 | 18.5 | 16.4 | 22.4 | 29.6 |

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