

TMX Information Processor

TMX DATALINX TECHNICAL NOTICE

TMX Information Processor - Bandwidth Recommendations Q2 2019

In an effort to provide TMX IP clients with timely guidance, we regularly review and evaluate the existing bandwidth recommendations to ensure they adequately reflect the growth in the market activity from the contributing marketplaces.

We recognize the impact that bandwidth and messaging rates have on downstream client systems and therefore we wish to advise that the recommended bandwidths for the TMX IP services have been revised.

NOTE: Recommendations below are based on average one second peaks. Clients are advised that microbursts occur from time to time and it is recommended that clients allocate sufficient bandwidth to cope with the microbursts to avoid packet loss.

Please find bandwidth recommendations for your reference below. These recommendations are valid from now until December 31, 2019.

For more information contact <u>TMX Market Operations</u> at (416) 947-4705, or your TMX Datalinx Account Manager.

CDF Service	Service Id	Current Q2 2019	Q3 2019 Bandwidth Recommendation	Q4 2019 Bandwidth Recommendation
CDF – Neo Exchange	CDF	85 Mbps	85 Mbps	85 Mbps
CDF – Alpha	CDF	37 Mbps	37 Mbps	37 Mbps
CDF – Nasdaq CXC	CDF	85 Mbps	85 Mbps	85 Mbps

CDF – Nasdaq CX2	CDF	80 Mbps	80 Mbps	80 Mbps
CDF – Nasdaq CXD	CDF	14 Mbps	14 Mbps	14 Mbps
CDF – ICX	CDF	1 Mbps	1 Mbps	1 Mbps
CDF – Liquidnet	CDF	1 Mbps	1 Mbps	1 Mbps
CDF – Lynx	CDF	28 Mbps	28 Mbps	28 Mbps
CDF – Omega	CDF	28 Mbps	28 Mbps	28 Mbps
CDF – CSE	CDF	117 Mbps	117 Mbps	117 Mbps
CDF – TriAct	CDF	1 Mbps	1 Mbps	1 Mbps
CDF – TSX	CDF	221 Mbps	221 Mbps	221 Mbps
CDF – TSXV	CDF	56 Mbps	56 Mbps	56 Mbps

Service A (TSX listed securities)	Service Id	Current Q2 2019	Q3 2019 Bandwidth Recommendation	Q4 2019 Bandwidth Recommendation
СВВО	CB1	60 Mbps	60 Mbps	60 Mbps
СВВОР	CP1	49 Mbps	49 Mbps	49 Mbps
CLS	LS1	124 Mbps	124 Mbps	124 Mbps
CDB	BK1	136 Mbps	136 Mbps	136 Mbps
CDBP	BP1	107 Mbps	107 Mbps	107 Mbps

Service B (TSXV, CSE and NEO listed securities)	Service Id	Current Q2 2019	Q3 2019 Bandwidth Recommendation	Q4 2019 Bandwidth Recommendation
СВВО	CB2	10 Mbps	10 Mbps	10 Mbps
СВВОР	CP2	8 Mbps	8 Mbps	8 Mbps
CLS	LS2	24 Mbps	24 Mbps	24 Mbps
CDB	BK2	34 Mbps	34 Mbps	34 Mbps
CDBP	BP2	34 Mbps	34 Mbps	34 Mbps