

Summary:

On Wednesday August 29, 2018, MATCHNow experienced market data issues that temporarily impacted its matching engine and distribution of public market data. MATCHNow suspended trading for the day at 11:20:02 a.m. on August 29, 2018. MATCHNow was fully operational the next morning on August 30, 2018.

Impact:

- 1) Call auctions failed to run between 09:30:00 a.m. – 09:46:21 a.m. on August 29, 2018.
 - Subscribers' passive orders maintained the ability to interact with contra IOC orders.
- 2) Trades were not reported on our multicast public feed between 09:49:46 a.m. and 11:20:00 a.m. on August 29, 2018
 - Subscribers received fill information on order entry sessions and drop copies
 - Regulatory feeds and drop copies were unaffected
 - Matches occurred using an accurate National Best Bid or Offer ("NBBO")
 - Trade data files were sent to vendors and Subscribers as requested

Cause:

- 1) The call auction matches failed because there was a difference in the number of symbols found in the matching engine versus the number of symbols in the price server. The price server is the component that provides the matching engine with the NBBO.
- 2) The multicast feed application terminated across MATCHNow's Production and Disaster Recovery locations and was unable to be restarted. The actions to resolve the call auction issue resulted in the multicast application having fewer symbols in its universe than the matching engine, and it was unable to find a primary exchange code necessary to build the outgoing trade message.

Resolution:

Both issues were the result of an inconsistent market data universe in our start of day process.

MATCHNow has identified both interim tactical and strategic measures to address the issue. All tactical measures been implemented to prevent re-occurrence. All strategic measures will be implemented in 3-4 weeks.