



Parallel Routing Strategies

Simultaneous Smart Order Routing

Route to multiple market centers simultaneously and increase potential price improvement opportunities with BATS parallel routing strategies Parallel D, Parallel 2D and Parallel T.

Parallel D – Best Price

The original order will be split into multiple orders and sent at a single price level to multiple market centers. Once liquidity at a price level is exhausted, BATS' router re-evaluates available displayed quotes to the limit price on the original order and will split the remainder of the order to send to displayed market centers.

After routing up to the original order limit price, any remainder will post on the BATS order book unless the order is marked Immediate Or Cancel (IOC).

Parallel 2D – Fastest Execution

Parallel 2D routes to all price levels at all protected market centers in parallel. This strategy will route enough size to each protected market center to fulfill the displayed quotes until the order size is exhausted to the limit price of the order.

If the entire order cannot be fulfilled with the displayed quotes the remaining quantity will be split among the market centers using a BATS over-allocation method.

After routing up to the original order limit price, any remainder will post on the BATS order book unless the order is marked IOC.

Parallel T – Top Only

Parallel T routes the order in parallel to protected markets sending the exact quantity of only the protected (top) quote to each market center. Unlike Parallel D and 2D, Parallel T will not use depth of book quotes to build the routing plan. Once the protected (top) quotes have been accessed, any unfilled shares will be posted to the BATS book or cancelled back to the user if it is an IOC order.

Standard Parallel Routing Behavior

IOC orders using any of the parallel routing strategies will cancel after routing to protected markets. Day orders will post on the BATS order book at their limit price after routing to protected markets.

For the BATS Equities Exchanges, all parallel smart order routing strategies may be combined with BATS' DRT strategy to access pools of hidden liquidity in addition to protected market centers.

Routing Strategy	Description	Comparative Advantage
CYCLE	Routes to one market center at a time resulting in fewer executions.	Small Orders
DRT (Equities only)	Routes to non-displayed liquidity.	Lower Access Fees Potential Price Improvement
Parallel D	Accesses one price level at multiple market centers at once.	Price
Parallel 2D	Routes to multiple market centers at multiple price levels at once.	Speed
Parallel T (Equities only)	Only executes against top of book liquidity at multiple market centers at once.	Visible Liquidity

Links

[BZX Exchange FIX Specification](#) | FIX (Financial Information Exchange) protocol information for BZX Exchange.
[BYX Exchange FIX Specification](#) | FIX (Financial Information Exchange) protocol information for BYX Exchange.
[Market Data Specifications](#) | Detailed connectivity information for each market data feed option.

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