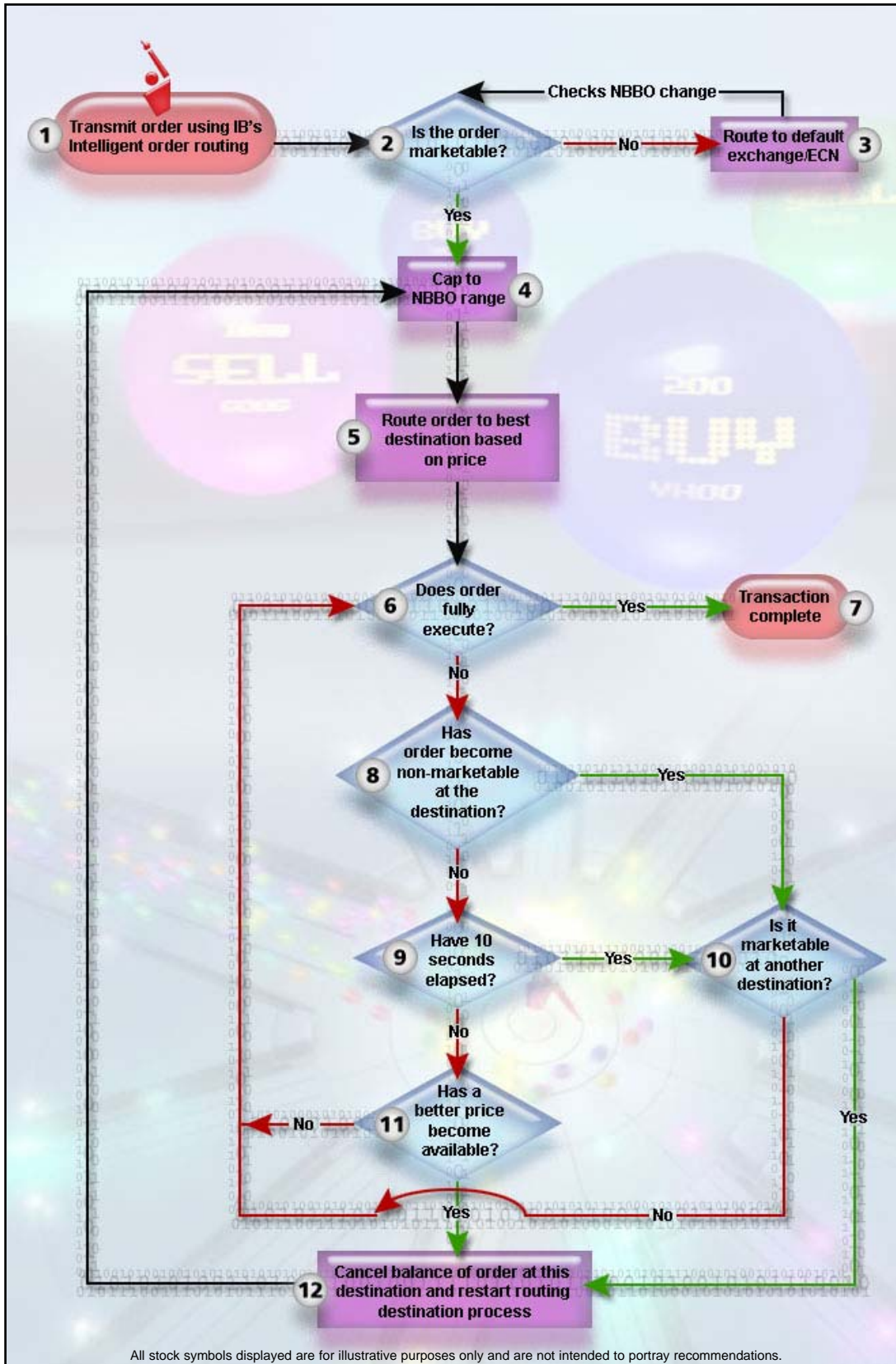




IB SmartRoutingSM for Stocks

Note: You can elect to exclude specific exchanges from the order routing flow. For more details refer to the TWS User's Guide.





1. Transmit order using intelligent order routing

To use IB SmartRouting, select Smart as the order routing destination when you add a market data line, or when you submit an order.

2. Is the order marketable?

A BUY order is marketable if the buy price is greater than or equal to the Best Offer (BO). A SELL order is marketable if the sell price is less than or equal to the Best Bid (BB). Market orders are always considered marketable. Note that SuperMontage and INET do not accept non-marketable limit orders (limit orders which are away from the current market and therefore not immediately executable). Consequently such orders can only be routed through IB SmartRouting or sent directly to another exchange.

3. Route to default exchange/ECN

If the non-marketable order is marketable against the midpoint of the NBBO, the order is sent as Immediate-or-Cancel (IOC) to the Midpoint Match ISE Stock Exchange. Non-marketable orders are routed to a default destination (NYSE for listed stocks and INET ECN for OTC stocks). SmartRouting logic checks changes in the NBBO to see if an order has become marketable. If it has, the order begins the routing decision process.

4. Cap to NBBO (National Best Bid/Offer) range

IB SmartRouting always searches for the best price in the market. In addition, to provide protection for market and through-the-market limit orders while increasing the probability of an execution, a price capping range is created.

The capping rules are outlined below:

For stock price \leq \$10.00 USD, increment NBBO by \$.01 USD towards limit order but not beyond the limit order.

For stock price \geq \$150.00 USD, increment NBBO by \$.05 USD, towards limit order but not beyond the limit order.

For stock price between \$10.00 and \$150.00 USD, interpolate from above rules.

Short orders for the exchanges and ECNs are automatically adjusted by the respective market center to comply with "short sale uptick" rules. Orders for SuperMontage and Inet are adjusted up a tick by our order routing logic before submission.

Example 1: A buy limit order at \$9.25 USD with NBO at \$9.22 USD is price capped at \$9.23 USD.

Example 2: A sell limit order at \$152.25 USD with NBB at \$152.35 USD is price capped at \$152.30 USD.

Example 3: A buy limit order at \$152.30 USD with NBO at \$152.24 USD is price capped at \$152.29 USD.

Example 4: A buy market order with NBO at \$152.25 USD is price capped at \$152.30 USD.

Simulated futures market orders are submitted at .3% better than the best bid or offer. If the order becomes non-marketable, the best bid or offer is recapped at .3%.



5. Route order to best destination based on price

The table below illustrates available routing destinations.

Order Destination	Exchange Orders	OTC National Market Securities (NMS)	OTC Non-NMS	OTC BB
ARCA	✓	✓	✓	
ARCAEdge				✓
Bloomberg Tradebook (Btrade)	✓	✓	✓	
BRUT	✓	✓	✓	
CAES	✓			
Drct Edge		✓	✓	
INET (Island)	✓	✓	✓	
Midpoint Match	✓	✓		
Knight				✓
NYSE Direct	✓			
NYSE - SuperDot	✓			
SuperSOES		✓	✓	
Timber Hill	✓	✓	✓	

The order is routed as IOC to the Midpoint Match ISE Stock exchange if it is non-marketable and \geq the NBBO Midpoint, OR if it is marketable AND:

- The NBBO spread is 1 cent and the NBBO size $\geq 3 \times$ (order size)
 - The NBBO spread is 2 cents and the NBBO size $\geq 2 \times$ (order size)
 - The NBBO spread is 3 cents and the NBBO size \geq (order size)
 - The NBBO spread is 4 cents or greater.
- To speed execution, an order will be sent IOC (Immediate-or-cancel) if the venue supports this order type.
 - Venues closed during extended market hours are excluded from the eligible routing destinations.
 - Because of certain fees imposed by the specialists on the Amex, SmartRouting will not route orders for SPYs and QQQQ's to the Amex.
 - Please note that if a quote is posted by a U.S. national securities exchange and the associated size is only 100 shares, this quote may not be considered as part of the best available national price. This is



because such 100-share quotes are usually "default" quotes that are not automatically executable. Such quotes have no standing under Intermarket Trading System trade-through rules.

6. Does order fully execute?

If the order fully executes, your transaction is complete. If none or part of the order executes, the balance continues through the routing process.

7. Transaction complete

The full order has been executed.

8. Has order become non-marketable at this destination?

As the market data changes, the order may no longer be marketable at its current destination. If it remains marketable, the order is left at the current destination. If it becomes non-marketable, the algorithm checks to see whether it is marketable at other destinations.

9. Have 10 seconds elapsed?

If the order remains marketable at a venue for more than 10 seconds without executing, and it is also marketable at other destinations, the order is cancelled at its current venue, the venue is removed from routing consideration, and the order routing decision process begins again.

EXCEPTION: If the current venue is NYSE and the order is still marketable there, it remains at the destination and does not begin the order routing decision process.

10. Is it marketable at another destination?

If the order is marketable on at least one other eligible venue, it is cancelled at its current destination and starts the routing decision process again. If the order is not marketable at any other venue, it remains at its current destination. The routing algorithm continues to monitor market data and scan all venues for a marketable destination.

11. Has a better price become available?

If a better price becomes available at another destination, the unexecuted balance of your order is cancelled and the order-routing decision process begins again.

12. Cancel balance of order and restart routing decision process

The unexecuted balance of your order is cancelled at the current destination and the routing decision process starts again. If an order is cancelled because it "times out" (10 seconds elapse), the algorithm checks to see whether it has been routed through all eligible venues. If it has, then all venues are included for consideration. If it hasn't been routed through all venues, the current destination is removed from consideration until all other venues have been exhausted.