

coinbase EXCHANGE

Exchange API Best Practices

February 2022



Exchange API Best Practices

Coinbase Exchange helps a wide variety of institutional clients access one of the deepest pools of liquidity of any regulated crypto spot exchange through high throughput APIs and an advanced trading interface. This document describes a few of our recommended best practices for our APIs.

Connectivity and redeployments

- We run our infrastructure out of US-EAST-1 (AWS). For optimal connectivity, we recommend you do as well.
- There are typically two FIX redeployments per week (Monday and Thursday @ 2PM EST) that will force disconnect users. Note: We do not deploy on holidays.
 - These redeployments do not impact FIX users that have setup tag 8013 (CancelOrdersOnDisconnect)

Optimized set up for FIX

- 10 profiles maximum
- 7 sessions per profile
- 50 requests per rolling second per session
 - Rolling second: the clock starts when the first command is sent. We use a [lazy-fill token bucket](#) implementation. More details can be found [here](#).

Order book auctions

- New books are now launched with Auction mode unless otherwise specified
- Enter limit orders to participate in a book currently in Auction; during Auction, no matches will occur, but once the auction is completed, crossed orders will be filled
- Note that orders with “post only” flag will be rejected as all orders that cross upon completion of the auction are treated as taker orders
- We recommend keeping track of the “auction_mode” flag within the [status](#) channel and the [/products](#) endpoint to note when a book is currently in Auction mode

Order book auctions (continued)

- We recommend you use the latest indicative price and best bid/asks disseminated periodically on the [auction](#) channel or through the L1 /products/{product_id}/book endpoint to adjust your orders during the auction.

Batch messaging

- We strongly recommend using batch messages for both order entry and cancellation.
- Up to 10 orders/cancels can be batched into one request
- Batch requests only count as one request for the purposes of rate limiting
- Batch requests are more efficient to process compared to the equivalent individual requests
- Cancel on disconnect - we support both cancel by session and cancel all by profile. Cancelling all by profile is more efficient than cancelling by session.
- Drop copy can be enabled on any session
- Order modifiers. See - <https://docs.cloud.coinbase.com/exchange/docs/messages>
 - Cancel on disconnect
 - Self Trade Prevention Policy
 - Good-till-time

Websocket API feeds

All supported channels are described here: <https://docs.cloud.coinbase.com/exchange/docs/channels>

- Heartbeat
- Status
- Ticker
- Level2
- Matches
- Full
- User - requires authentication

Websocket API best practices

- Subscribing to one channel per connection is recommended over subscribing to hundreds of channels over one connection.
- We recommend authenticating with every connection (even if not required).