FETCH Implementation Issues

#632 What if a FETCH header is lost?

C->S: FETCH
S->C: FETCH_OK
S->C: open fetch stream (2)
S->C: write FETCH_HEADER (2, delayed/lost)
S: API error, RESET_STREAM (2)

The client is stuck waiting for a FETCH response.

Option 1: Do nothing, it needs a timeout anyways for malicious/buggy peer

Option 2: Recommend RESET_STREAM_AT to ensure header delivery

Option 3: Use a bidirectional stream for FETCH, RESET is joined to the request

#630 FETCH_CANCEL and STOP_SENDING

Can we remove FETCH_CANCEL and just use STOP_SENDING?

Option 1: Do nothing, send FETCH_CANCEL to cancel and include STOP_SENDING if the stream is open

Option 2: Remove FETCH_CANCEL, can’t cancel FETCH until stream is open

Option 3: Use a bidirectional stream for FETCH, STOP_SENDING cancels.

Considerations for FETCH as a bidi stream

Control message ordering

For Joining FETCH, the FETCH might arrive before the corresponding SUBSCRIBE

Otherwise is it that bad?

Where does FETCH_OK go?

It’s allowed to come before/during/after the FETCH response.

Option 1: Leave it on control stream

Option 2: Put it on the bidi stream, but allow it before/after any object

Option 3: Put it at the beginning of the bidi stream (introduces HoL blocking)