

# Hackathon update IETF-118: Careful Resume for QUIC

Ana Custura  
Gorry Fairhurst  
Joerg Deutschmann  
Raffaello Secchi

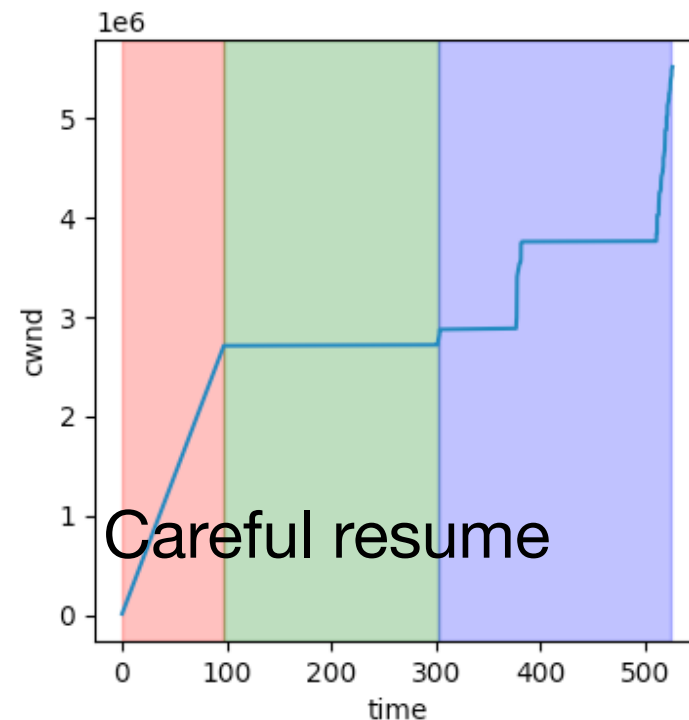
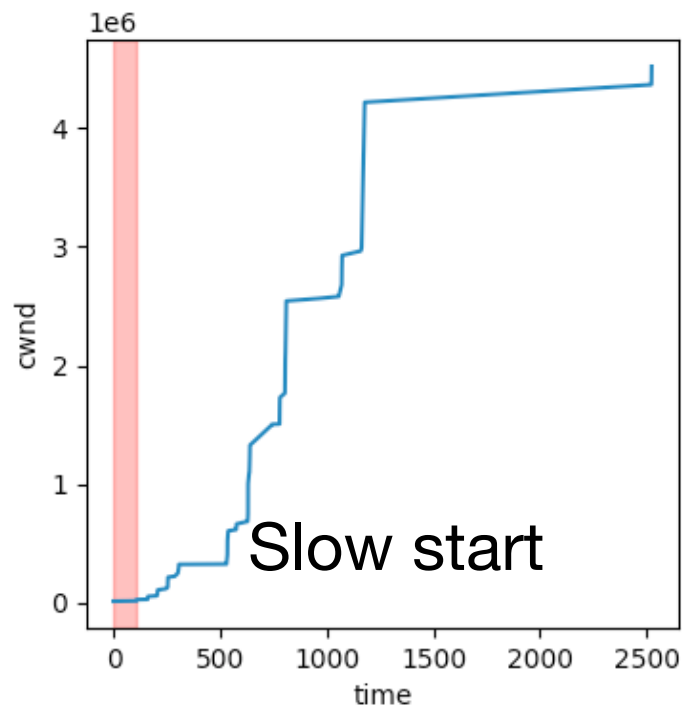
**Special thanks to...**

Kazuho Oku &  
Lucas Pardue & Alessandro Ghedini

# Careful Resume for QUIC

- Transport method to increase cwnd at start-up
- Based on saved path RTT and capacity/cwnd
- Gets up to speed faster than Slow Start
- Tools to visualise congestion and CR-specific parameters

**draft-ietf-tsvwg-careful-resume**



# Hackathon Progress

- Added `qlog` support to track CR state changes
- Implemented CR for Cubic in Cloudflare Quiche
- Others added tests with PicoQUIC and Quicly
- Tested a CR-enabled server with various clients

Client	Server
Cloudflare quiche	Cloudflare quiche
Cloudflare quiche	Fastly quicly
Fastly quicly	Cloudflare quiche
Picoquic	Cloudflare quiche
Picoquic	Fastly quicly
Fastly quicly	Fastly quicly

# Next steps

- Continue implementation efforts
- Validate the method in different network scenarios
  - Test the recovery algorithm after CR into congested bottlenecks
  - Develop a test server that caches, then uses, saved cwnd and RTT information to perform CR for connecting clients