We’re having difficulty integrating Firepad.io and Firebase, with Empirica.   
We have a firepad editor alongside Empirica’s chat functionality. When either element is used independently, they work well. But immediately after editing the Firepad editor messages will not send in the Empirica chat for ~10 seconds. Editing the Firepad editor during this ‘lag’ time is not a problem and updates correctly to the synched editor on a different participants screen.

Firepad is built on top of firebase and uses the real time database. After initialising a Firepad app, it is set to ready to listen to any synch events. A synch is false immediately after a local edit, and is set to true when a local edit is stored in the Realtime database. I wonder if there is some additional hang time after a synch that disrupts the sending of messages in Empirica?

Looking at the performance for both the meteor app and the firebase app, neither seem to be struggling in terms of load (~20% max for meteor, 2% max for firebase).

This problem only happens when the Empirica app has been deployed on meteor and is connected to the mongoDB and not when deployed locally with no DB connection.