## bullhorn Design

bullhorn allows data to be sent on a network from publishers to subscribers.

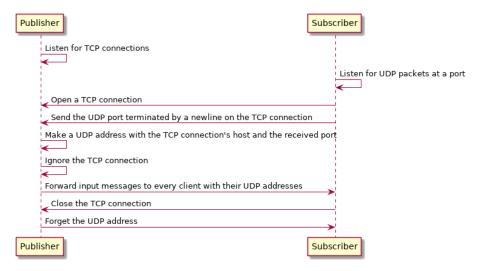


Figure 1: Sequence Diagram

This is done via a pub/sub system which operates over UDP with a TCP trunk. The TCP trunk allows the publisher to know when to stop publishing to subscribers and lets the subscriber know when it needs to try to reconnect to a publisher if reconnect is enabled. The unreliable UDP connection is fine because mostly periodic statuses are sent through the system.

The publisher will publish all newline-separated lines it receives over STDIN to every subscriber until STDIN is closed.

The subscriber prints all newline-separated lines it receives from the publisher until the publisher is closed if reconnect isn't enabled. The subscriber never closes if reconnect is enabled and will just periodically attempt reconnects. The subscriber will always exit with a failure to connect unless terminated because it will either try to reconnect forever or fail to connect to a terminated publisher.