

Source Buffer Management

IETF 122 Bangkok, March 2025

Stuart Cheshire, Apple

Source-Device Bufferbloat

April 2011

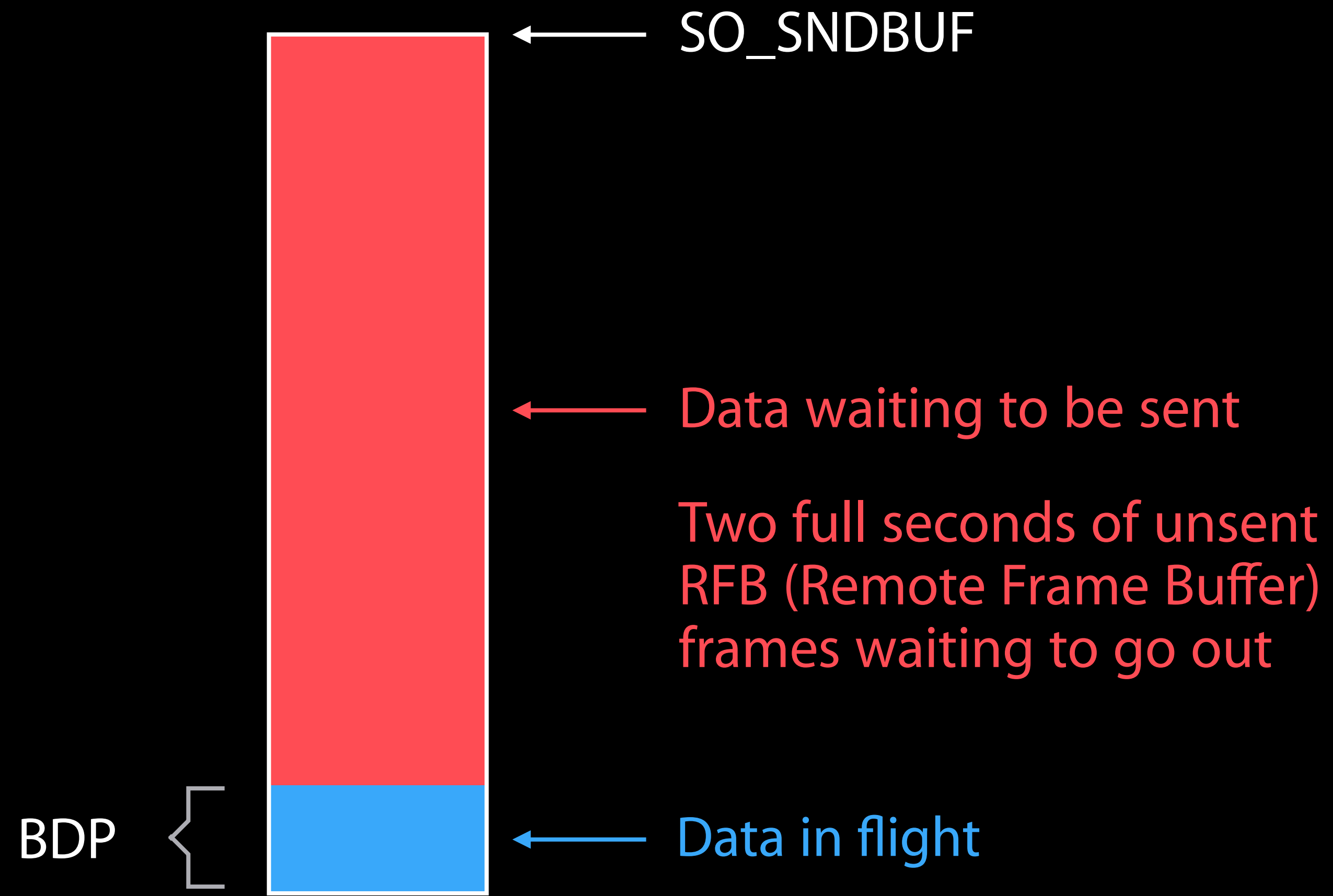
Mac OS Screen Sharing sluggish on slow networks

Network Bufferbloat suspected

Real cause was excessive buffering by the sender

Sluggish Screen Sharing

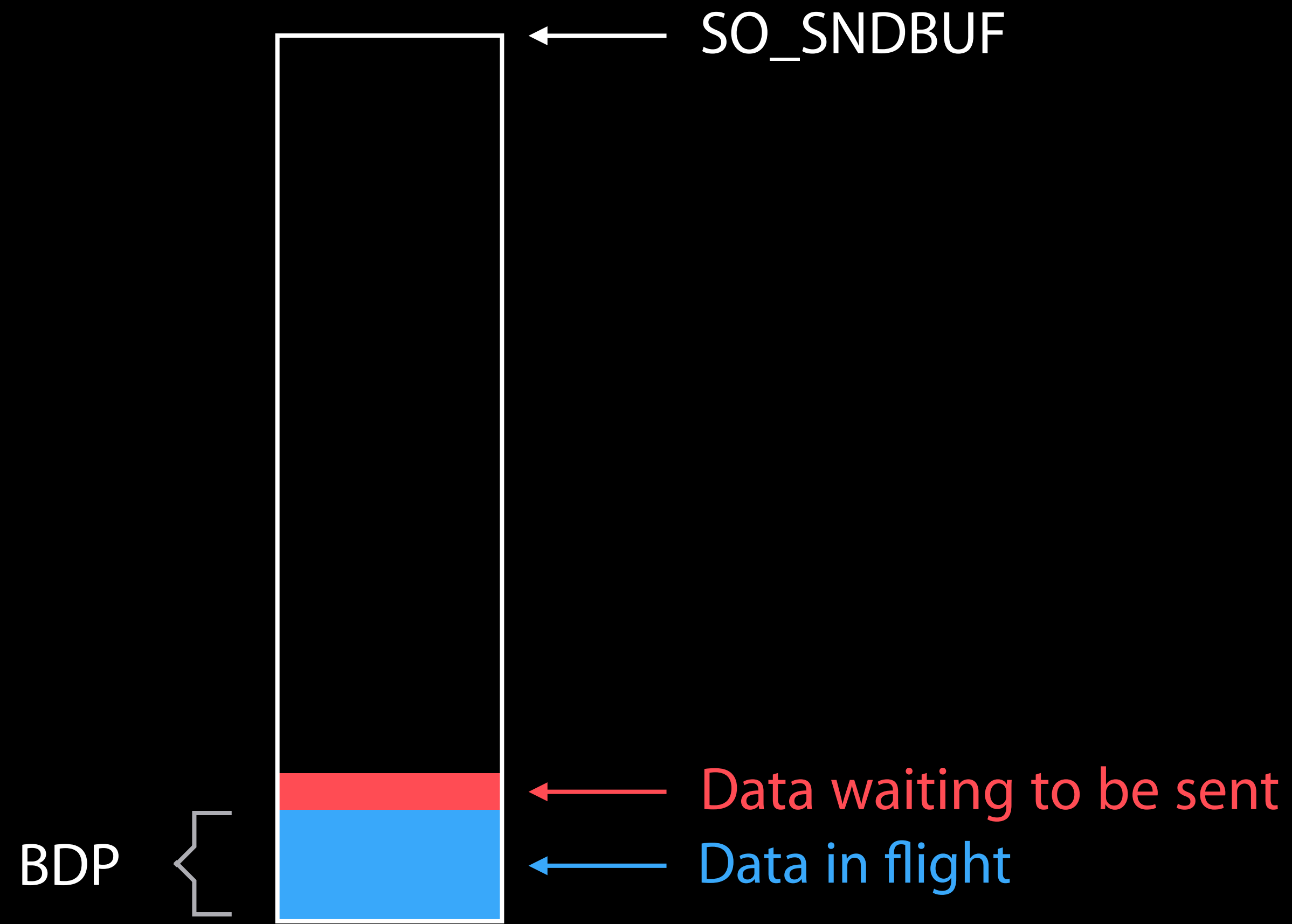
Source-device Bufferbloat



Snappy Screen Sharing

Using TCP_NOTSENT_LOWAT (TCP Not-Sent Low-Water Mark)

Demo Video
Apple WWDC 2015
“Your App and Next
Generation Networks”



Beyond TCP_NOTSENT_LOWAT on Mac OS

Discussion at IETF 121 in Dublin side meeting

Low-water mark specified in milliseconds, not bytes

Other platforms: Microsoft Windows, FreeBSD, Linux, Android, etc.

Other protocols: QUIC, etc.

How to Learn More

Source Buffer Management

Read draft-cheshire-sbm

Join mailing list sbm@ietf.org

Come and find me to chat

Send feedback!