

frame synchronization

this is step one of
"make computers talk
to computers"

how do we decide where
one message **ends** and the
next message **starts**?

if something goes wrong,
how do we get
un-confused?

how do we decide if a
solution is "good"?

1

efficiency in "wire utilization"

2

robustness to:

data loss

data corruption

desynchronization

3

simplicity

let's imagine a telegraph...

one sender, one receiver:
they don't control the
content of messages they
send

how do they "frame"
messages?

"in band" vs "out of band"
signalling

1

They could use "line silence"

2

They could use "length
header"

3

They could use a
"flag word" (aka "byte
stuffing" or "escaping")

4

My favorite: COBS
Consistent Overhead
Byte Stuffing