

NWHACKS 2019



ASKEY



ASCII VIDEO CHAT

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PROBLEM STATEMENT



Stable video calling can only be done under high bandwidth and latency internet connection — a service not available for many around the world.

CONNECTING THE WORLD



- Massive difference, talking to family overseas using video instead solely using voice
- Video calling is expensive and not everyone can have access to the resources necessary to utilize it

OUR SOLUTION

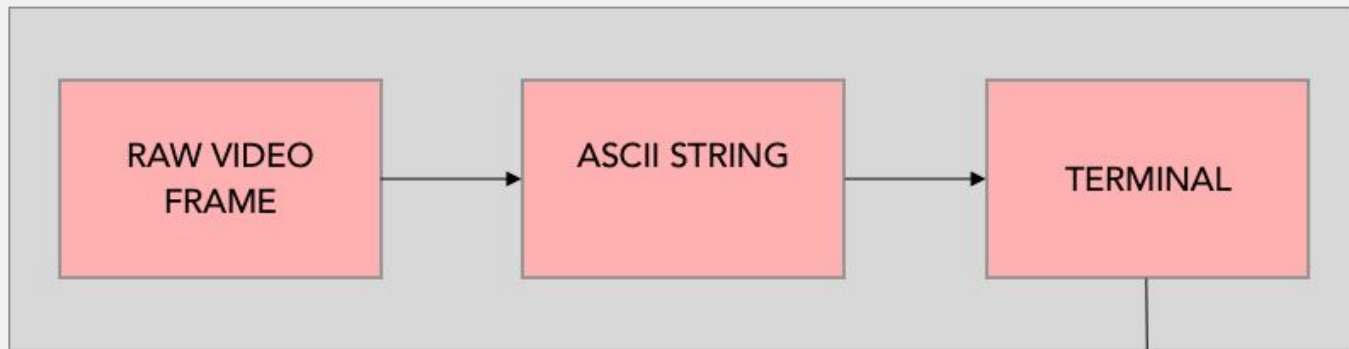
- Compress sequence of images to a more manageable format
- Preserve the key features of video calling including facial expressions and body gesture during compression

OUR IMPLEMENTATION

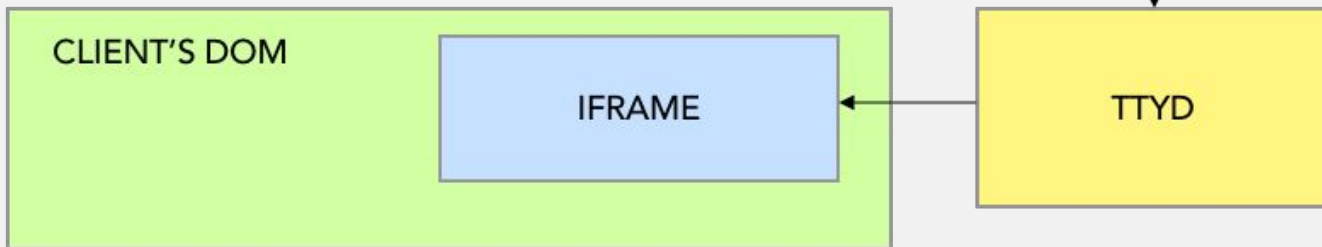
- Convert video frames to ASCII strings and use terminal on web to transfer this data
- Livestream audio utilizing FFmpeg library
- Incorporate the ASCII data to an accessible web application

HOW IT WORKS

SERVER



CLIENT



EFFICIENCY



~11 MB/s
(480p RAW video)

~250 KB/s
ASKEY

1 minute of 480p RAW video streaming is equivalent
to about 44 minutes of ASKEY video streaming

HOW IT LOOKS

YH Yep Heff

Message

Guest
jnASD

Guest
sadjksakd,lkas'

Guest
sad

Guest
sadbbsad

Nicholas
sad

Nicholas
hl

Nicholas
dsadas

Nicholas
dsaddsad

Nicholas
dsadddsadsada

Nicholas
Hello there

Nicholas
boo

ASKEY

Message

Guest
jnASD

Guest
sadjksakd,lkas'

Guest
sad

Guest
sadbbsad

Nicholas
sad

Nicholas
hl

Nicholas
dsadas

Nicholas
dsaddsad

Nicholas
dsadddsadsada

Nicholas
Hello there

Nicholas
boo

ASKEY

Message

Guest
jnASD

Guest
sadjksakd,lkas'

Guest
sad

Guest
sadbbsad

Nicholas
sad

Nicholas
hl

Nicholas
dsadas

Nicholas
dsaddsad

Nicholas
dsadddsadsada

Nicholas
Hello there

Nicholas
boo



**THANK YOU
NWHACKS!**

ASKEY

James
Ali
Valerian
Nicholas

