

# Multicast QUIC

[draft-jholland-quic-multicast](#)

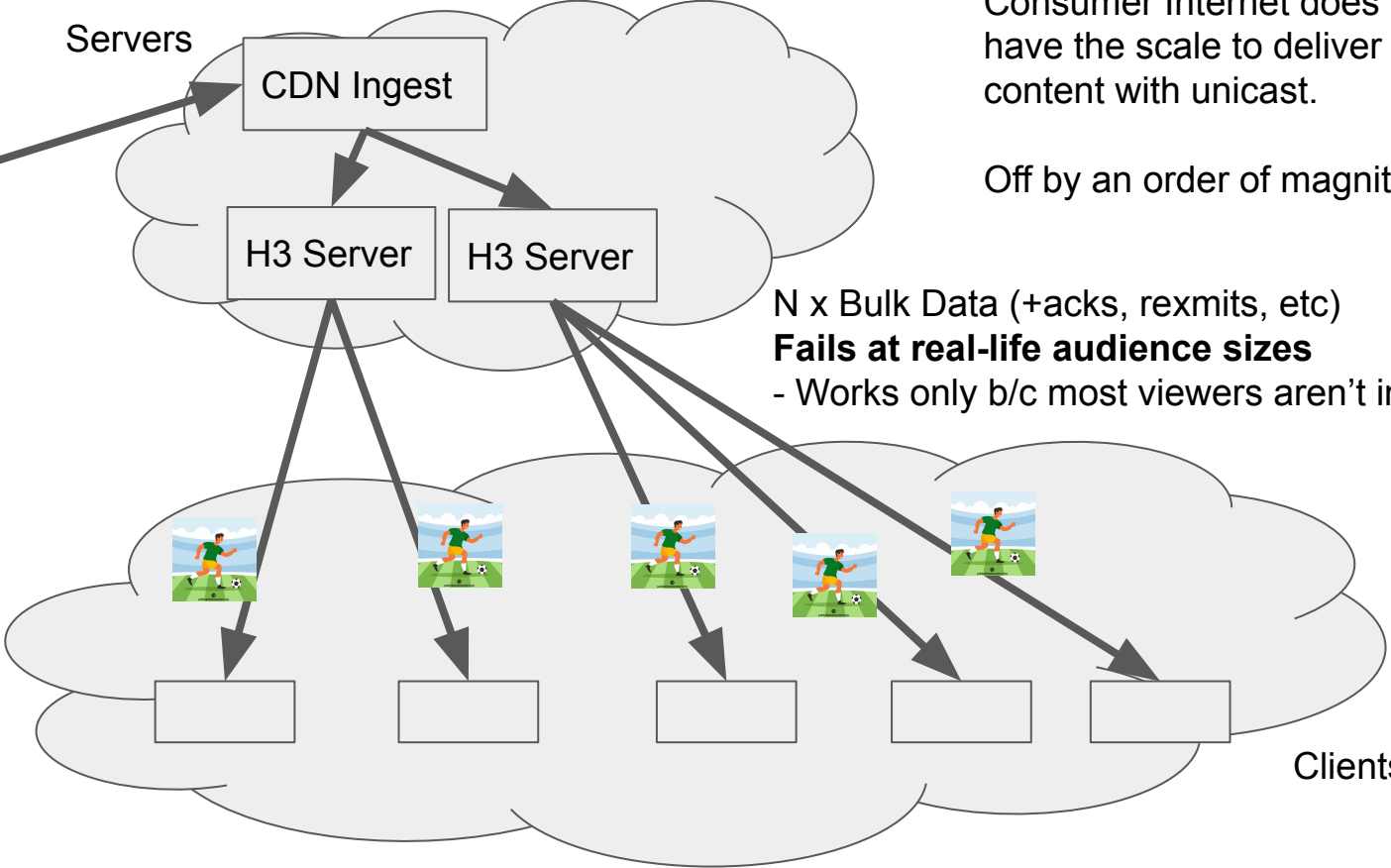
**Jake Holland**

Max Franke

Lucas Pardue

# Brute Force Unicast Scales Terribly

The Big Game

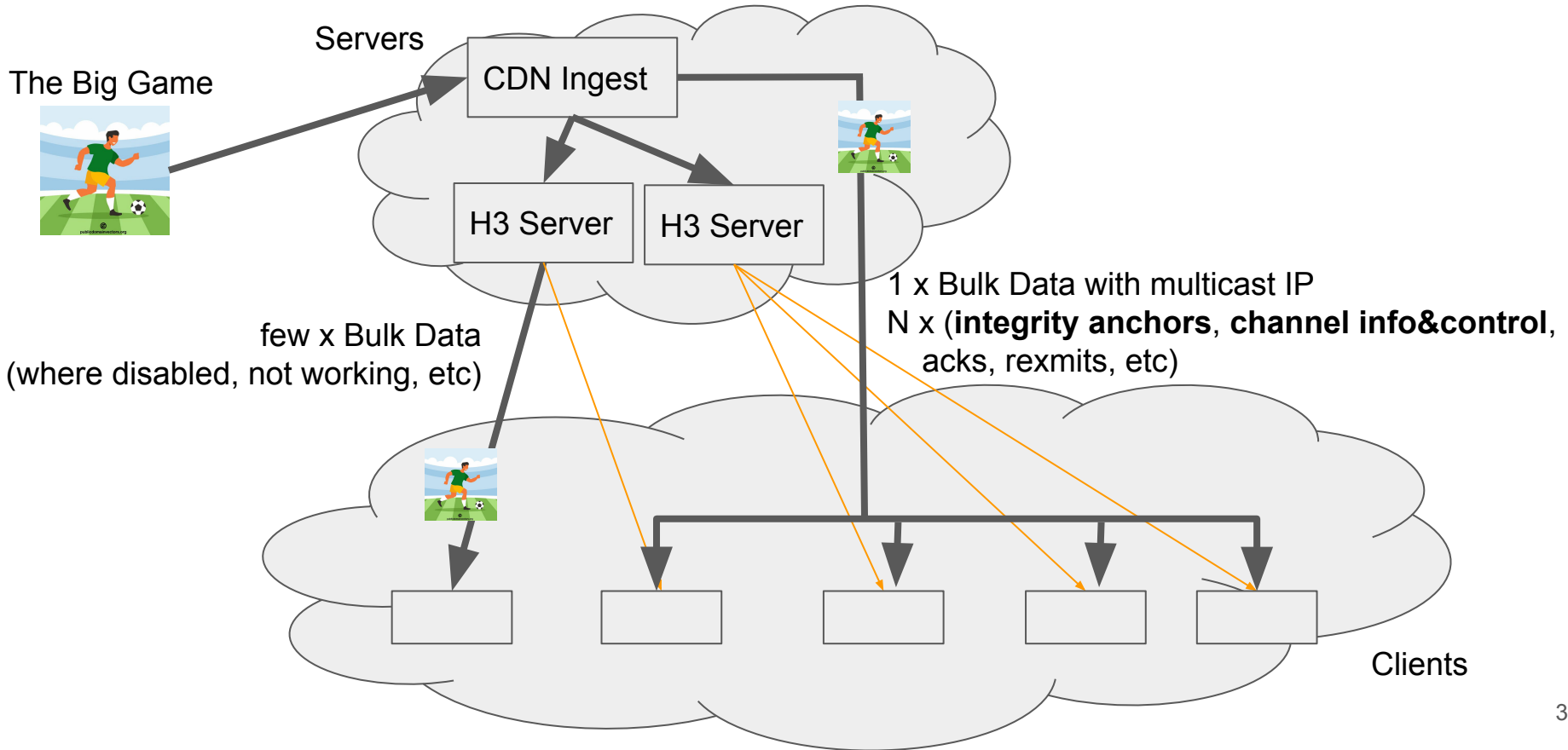


Consumer Internet does not have the scale to deliver popular content with unicast.

Off by an order of magnitude

$N \times$  Bulk Data (+acks, rexmits, etc)  
**Fails at real-life audience sizes**  
- Works only b/c most viewers aren't internet!

# IP Multicast to the Rescue!



# Multicast QUIC in a Nutshell

- Anchored by secure 1-1 unicast connection
  - Multicast Packets are just part of that connection (for a bunch of connections)
  - Extra integrity protection b/c shared keys
- Server tells client what to join & leave
  - Client acks the data with unicast
- Multicast is Server-to-Client only

# Learn More! Join in! (Or Shoot it Down!)

- Read the draft!  
<https://datatracker.ietf.org/doc/draft-jholland-quic-multicast/>
- Open an Issue! Send a PR!  
<https://github.com/GrumpyOldTroll/draft-jholland-quic-multicast>
- Help Implement!  
<https://www.w3.org/community/multicast/>
- Ping me!  
[jholland@akamai.com](mailto:jholland@akamai.com)
- Last slot in QUIC wg, (1st session Thursday)  
<https://datatracker.ietf.org/meeting/114/materials/agenda-114-quic-00>