



MAUD

Multicast-Assisted Unicast Delivery

Steve Appleby

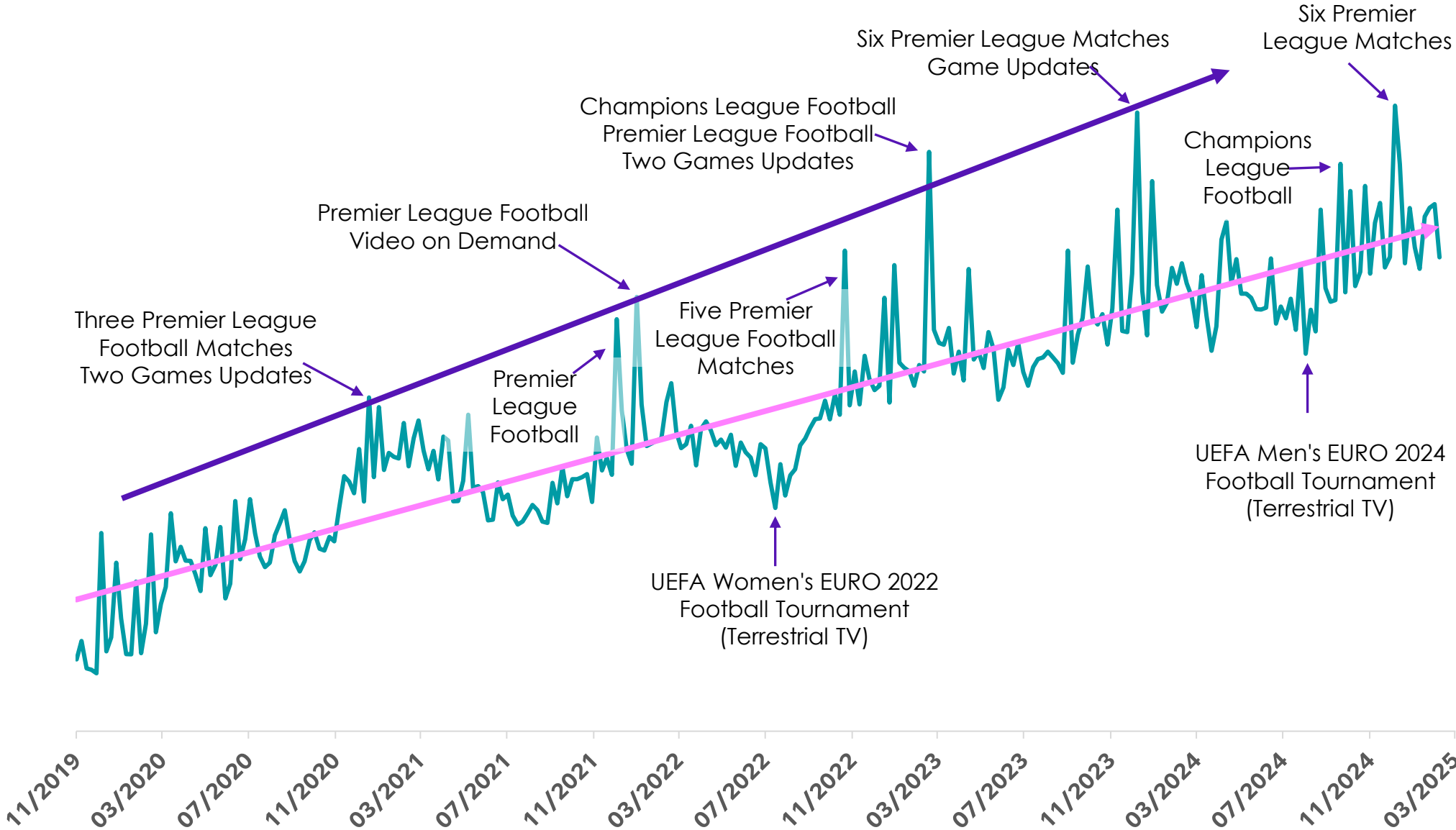


21st July 2025

BT Group



The Broadband Unicast Challenge

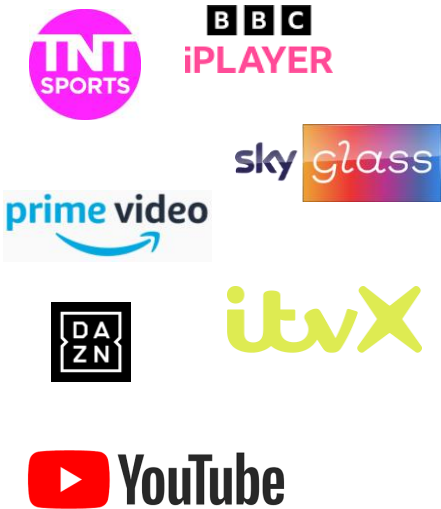


MAUD

Multicast Assisted Unicast Delivery is a unique way to deliver content very efficiently, combining the best of unicast and multicast

Content Service Providers

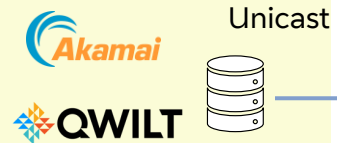
- Can treat MAUD as a CDN
- No special integration required



(examples of popular CSPs)

Content Delivery Networks (CDNs)

- Can apply access controls
- Simple integration



(examples of popular CDNs)

Network operator (ISPs)

- Use MAUD to deliver content over multicast

Player Applications

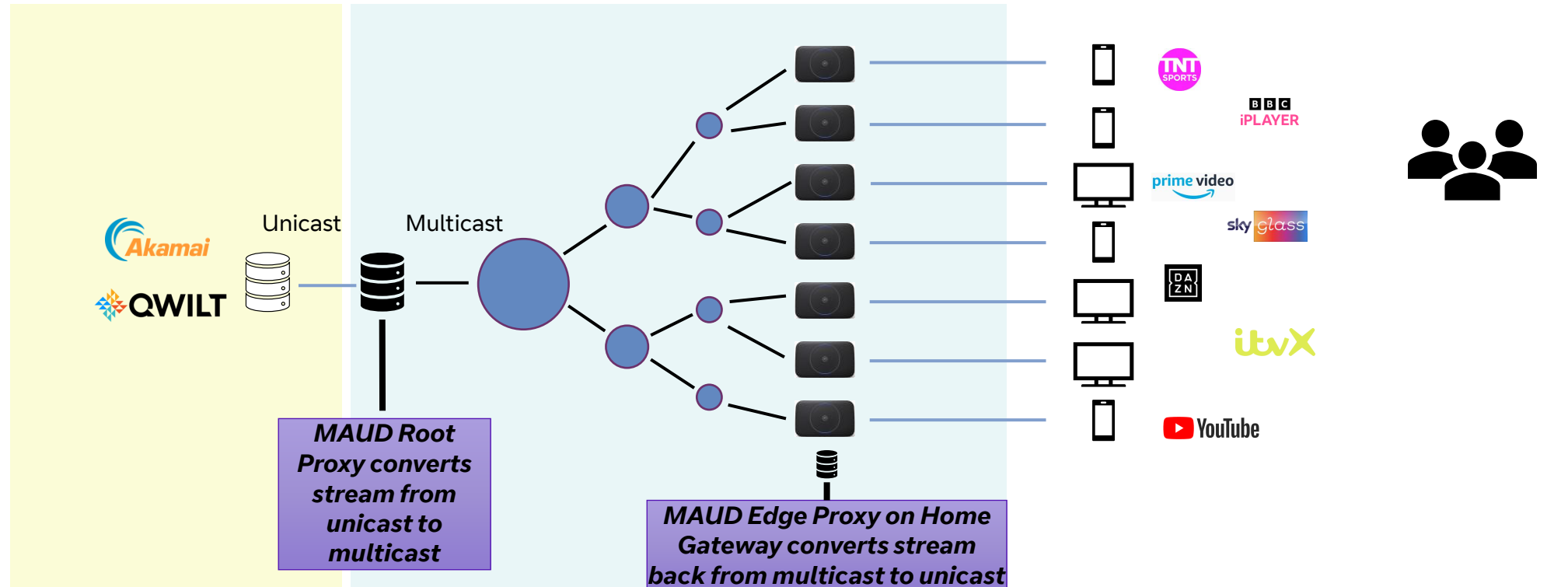
- No need to modify app



(examples of popular CSPs)

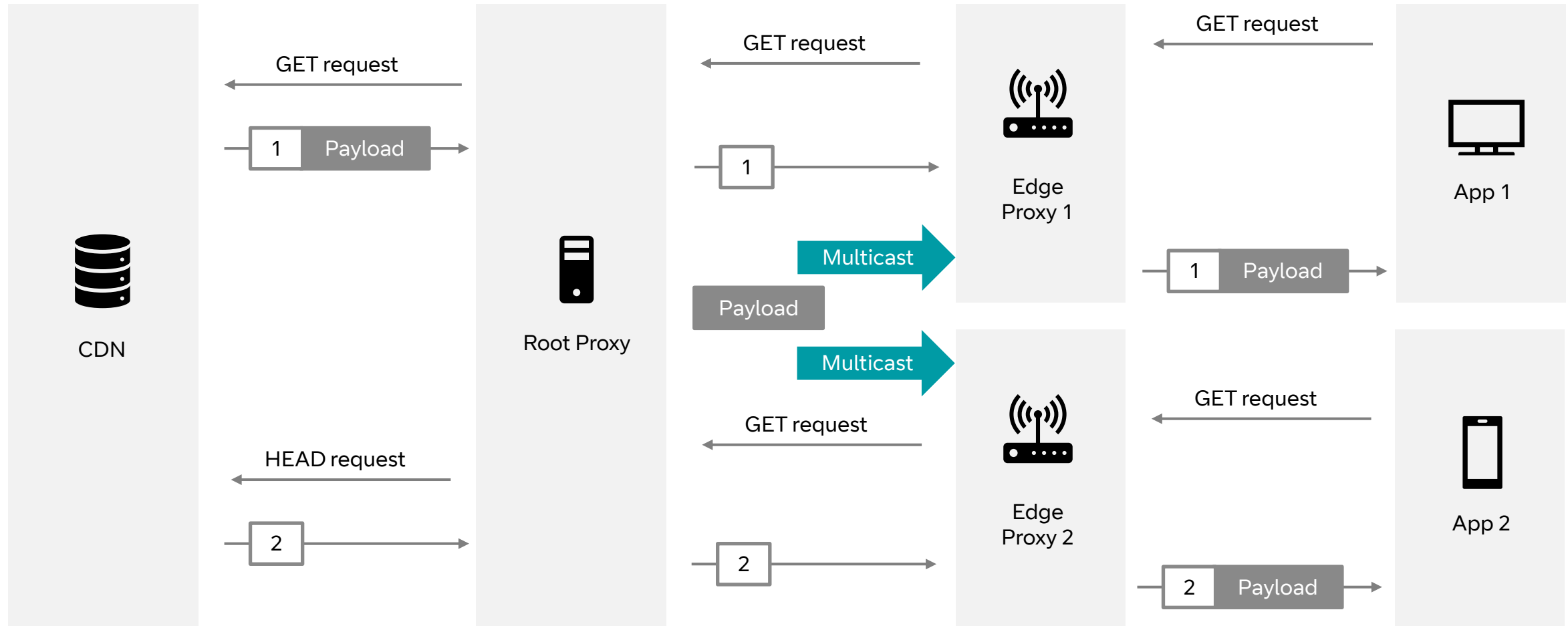
Viewers

- It just works



Multicast-Assisted Unicast Delivery

Preserve visibility and control to integrate with CDN



First request sent to CDN as an HTTP GET request.
Subsequent requests sent as HTTP HEAD requests.

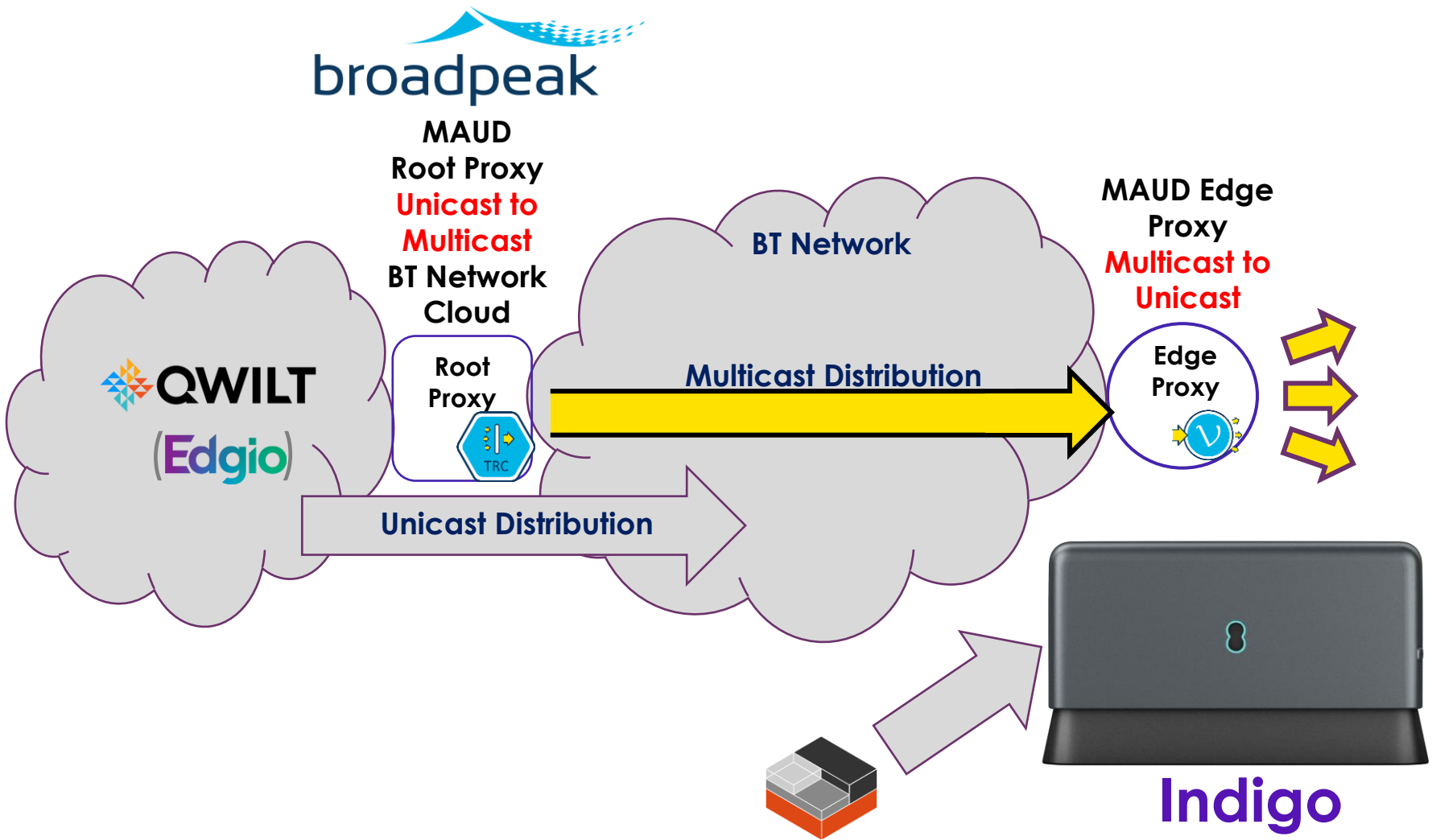
Multicast-delivered payloads combined with unicast-delivered headers at the Edge Proxy to form full response.

MAUD – Live Trial



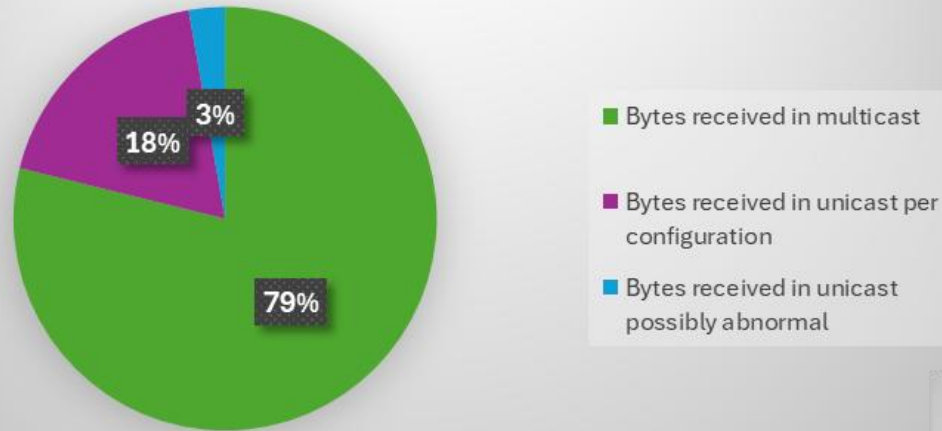
Cloud Headend

-
-
-
-
-
-
-
- >200 channels

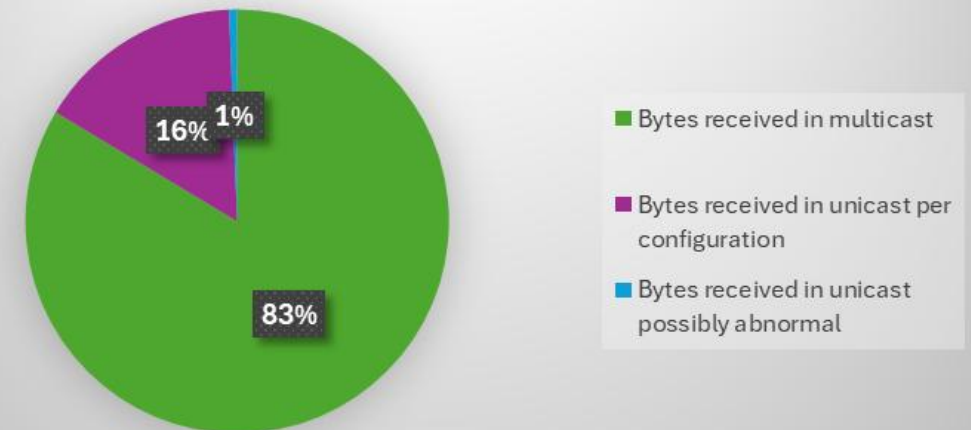


Bandwidth Saving in Initial Trials

MAUD Mean Multicast Efficiency
1st Nov '24 - 31st Mar '25

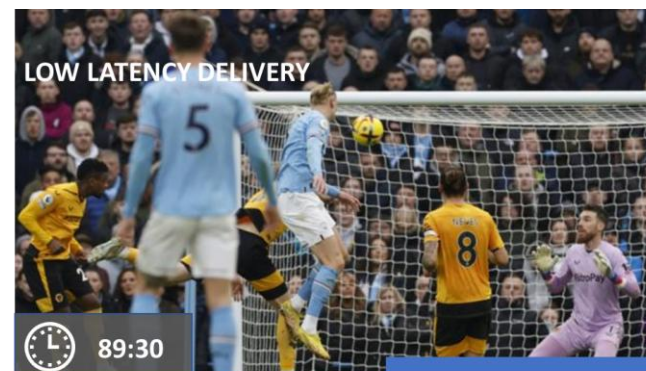
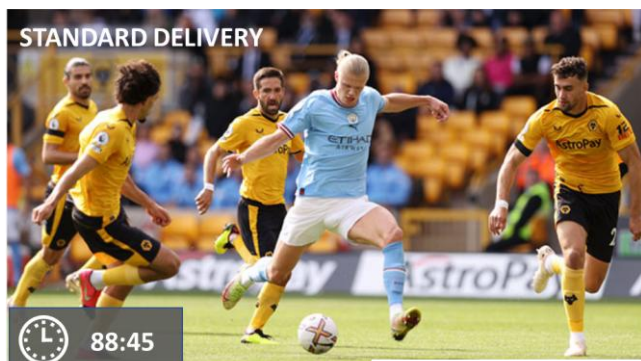


MAUD Mean Multicast Efficiency
1st Mar '25 - 31st Mar '25



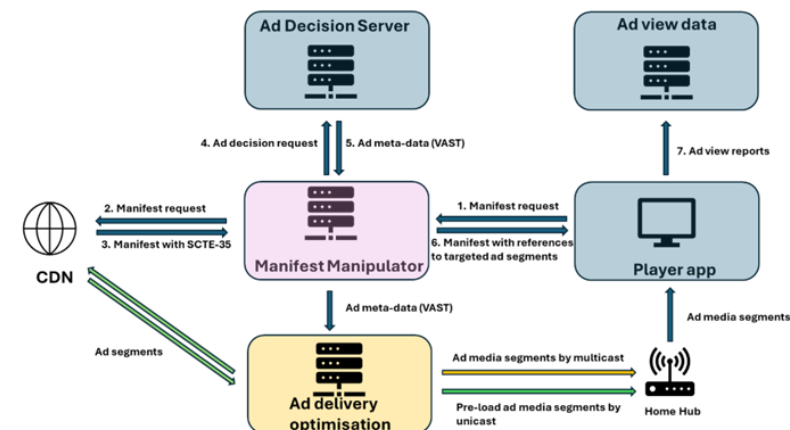
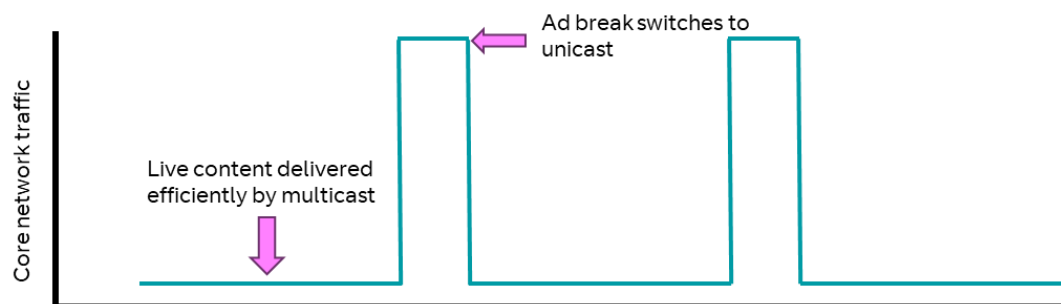
...and more research

Scalable low-latency streaming



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Efficient delivery of personalised adverts





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