An update on
Streaming Video Alliance

Interim Meeting

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Streaming Video Alliance

- Steaming Video Alliance is an ecosystem comprising of content publishers, content distributors, network service providers and technology vendors, working jointly on all things related to over-the-top streaming media

- The alliance relies on the IETF for all aspects around protocols supporting streaming media, but equally important is the collective experience and expertise of its members to collaborate on best practices, guidelines, and sharing of its implementation experience to improve interoperability and ensure a consistent end-user experience

Video Streaming and The COVID-19 Effect

- Comcast's[1] streaming and web video consumption is up a 38%
  - Comcast reported peak traffic is up 32% overall between March 1 to March 30

- AT&T[2] reports a 28% jump in core network traffic(single day in April and as compared to pre stay-at-home daily average traffic)
  - Video accounted for nearly half of all mobile network traffic, while social networking and web browsing remain the highest percentage (almost a quarter each) of overall mobility traffic

- Verizon[3] has reported similar trends with video traffic up 36% over an average day (pre COVID-19).
  - The top three applications by usage on Verizon's wireless network[2] in March were YouTube, Facebook and Instagram

What about the Streaming experience?

Sources:
1. https://www.cnbc.com/2020/04/03/streaming-wars-on-hold-during-quarantine-as-free-content-takes-over.html
2. https://about.att.com/pages/COVID-19.html
3. **https://www.fiercetelecom.com/telecom/verizon-u-s-network-usage-starts-to-normalize-as-subscribers-settle-into-new-routines**

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Yes, there is a room for Improvement

- Best Practices for Reducing Live Streaming Latency

  – This project looks at all the points of potential latency within a streaming video workflow (glass-to-glass), examines where fault may lie, and proposes recommendations to remedy potential latency.

- Recommendations for Mitigating Latency in Streaming VR Video Workflows

  – A lab-based approach to examining where latency might occur in streaming VR video workflows (including the HMD and other end-point devices) that may cause unwanted viewing experiences (i.e., nausea).

- Technical Evaluations and Measurements

  – This project will test the recommendations made in the Best Practices for Reducing Live Streaming Latency document in a lab environment to make further optimizations to the best practices for mitigating latency.

And potential for some IETF direction

Potential Work Under Consideration

- TCP Stack Optimization Best Practices

  - Recommendations for TCP stack optimizations for streaming video.

- Network Scaling Recommendations for Streaming Video Architectures

  - An analysis of the result of the COVID-19 "sudden scale" on streaming video infrastructure and recommendations to improve network resiliency and scalability.

- Content Pre-positioning in In-Home Storage

  - A look at how streaming video distributors could utilize in-home storage to pre-position content so that playback is local and leveraging recommendation engines to push content in anticipation of demand.

Alliance groups are evaluating several other projects that may kick-off this year

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Note: these projects have not been approved by Alliance groups as of yet and, hence, are not listed on our Projects webpage.

Potential New Working Groups

- CDN Interoperability (Open Caching sub-group)
  - A new sub-group addressing best practices and technical specifications for CDN interoperability

- Player
  - A working group focusing on player technical challenges, recommendations, and specifications.

Working groups under consideration to address critical streaming video topics

THANKS!

If you have questions or require more information, don't hesitate to contact me