



Greening of Streaming

15 month update and invitation to membership

Agenda

Update

- WG1 Lexicon and Terminology
- WG2 Outreach
 - Parliamentary Engagement
 - Media Engagement
 - Annual Summit
- WG3 Best Practices / Governance
- WG4 Live event Energy Measurement
 - Energy instrumentation and the science around the measurement
 - Filling Gaps
 - Choosing an Event (Large event “End of November” :)
- WG5 Audio Streaming
- WG6 Compression Analysis
- WG7 KPI and Capacity Planning
- **WG8 Enterprise Streaming (proposed)**
- WG9 Academic and Industry Association Liaison (forming)

WG1: 'Lexicon'

More than half a dozen members working together to form an open consensus for measures and terminology when 'translating' between the disciplines of streaming and climate science

Critically defining energy measurement as it relates to streaming infrastructure

Document submitted to SVTA : "Watts, Streaming Services and Measurement".

Current discussions: "Wake / Sleep / Stand-By / Power Off"

WG2: Outreach and Membership Development

Parliamentary Launch Event: June 8th 2022

- Sponsors:
 - Dr Alan Whitehead MP (Shadow Minister for Green New-Deal and Energy)
 - Matt Warman MP (Formerly Parliamentary Under Secretary of State for Digital Infrastructure)
- Member Presentations / WG4 update / YouGov Poll Results

Annual Summit - Sept 7th 2022

European Public Policy Event in planning.

- Location / Audience (Evaluating MEP targets and other organisations)
- Goals (Scoping / Evaluating)
- (Currently expecting WG6 to contribute central role)

Media Engagement

- Features: Telegraph / Guardian / BBC South East Today
- FEED / Faultline / Streamingmedia / CSI / Broadcast Now

Public Policy Engagement

- Ofcom Engagement (sept 2022)
- Parking UK proactivity to plan for Eu and US work (too heavily identified with UK at the moment - need to broaden that perspective)

Conferences

- IABM / Horizons (EBU) / Audio Collaborative / BHITS (MESA)
- DPP in pipeline
- IAB Workshop (also WG6) in pipeline

<https://www.greeningofstreaming.org/events> Updated to include current events for general public, and list of WG meetings.

Also instituted a 'monday informal mail out' to members including meetings and events for the week.

WG3: Best Practice

A founding principal of GoS is 'sharing of best practices'

Barbara Lange (ex Exec Dir. SMPTE) has taken WG3 Lead on.

- Taking role of oversight and governance of GoS
- Planning Head of Terms finalised.
- Can be considered the 'Formal Publishing Arm' of GoS.
- Discussing taking ownership of the WG1 Watts Document

Barbara has agreed to guide governance for the group as part of this role.

We also plan to formalise the 'volunteer secretariat' as part of the governance review.

WG4: Live Event Energy Measurement

Significant Member Support

Data was captured in Members' own networks

Members are working with their own clients and partners to ensure we develop a true real-world data set

University of Bristol (and others - see Working Group 9) are committed to independently analyse the data

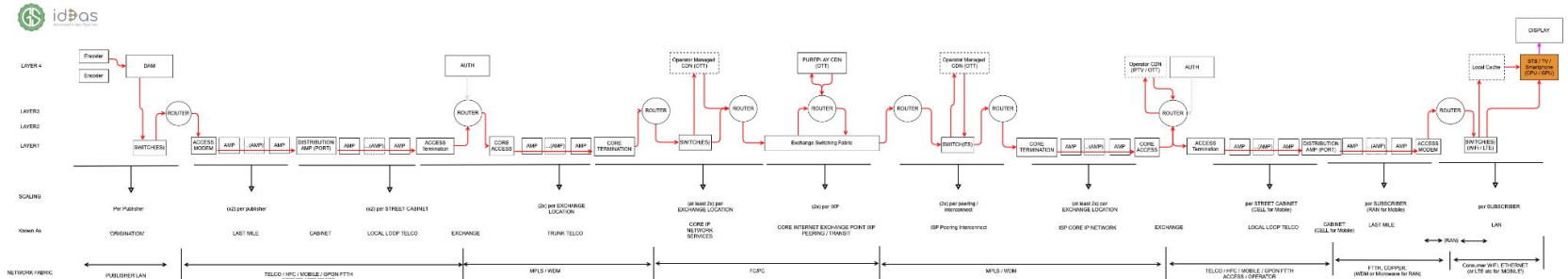
Initial review suggests null hypothesis was 'true'

Gathering significant industry and media interest

More members joining and adding data flows.

Working toward infrastructure measurements in second half of November around 'large sporting events'

WG4: 'Thought Exercise...'



Null hypothesis: *'We will see the energy requirement rise and fall with the availability of the infrastructure, rather than directly with the ebb and flow (data traffic) of the audience'*

The established models of energy apportionment using 'Data attribution' only evaluate use of infrastructure, and do not factor in the energy required to make the streaming service available even before any data is distributed.

Get Involved in WG4!

We are looking for deeper insight into the detailed energy requirements of live streaming infrastructures.

We are keen to hear from companies who operate streaming infrastructures, services and technology

- wanting to work together with others in the live streaming supply chain to engineer 'joined up thinking'
- who are keen to ensure optimal collective supply chain alignment with energy efficiency as a central focus.

WG5: Audio Streaming

Audio companies have some interesting and different solutions to those shown by the video companies and we are undertaking some audio-company specific projects

- Reducing replication of core music library - can replication of metadata make a difference?
- Looking to shadow WG4 and setup for live event energy measurement, with a straw-man project looking at the energy footprint around Eurovision Song Contest internet radio streaming in May 2023

WG6 : Compression Investigation

Working Group looking into compression and efficiency.

Proposal to IAB Workshops to present the 'Good Enough' / Gold Button principle - exploring an MVP for minimal energy / good enough QoE as a baseline - is it viable etc.

Also exploring other improvement to energy efficiency around compression.

Gold Button idea being presented to IABM and EBU at various events in Nov / Dec 22. Once we are clear there is industry wide appetite to discuss then this topic *may* form the basis for the EU Public Policy / Media event in June (WG2).

WG7: KPI and Capacity Planning

Looking at driving Energy into standard developments as a KPI.

Starting with SVTA liaison around the Open Caching Capacity Insights model, and with aspirations to repeat in other standards groups.

WG8: Enterprise Streaming

(Delayed - the WG lead has had covid)

Expects to reach out to enterprises that make heavy use of video (even if it is not core business) to help them ratify and understand the energy aspect of video services specific to enterprises.

WG9 Academic and Industry Group liaison (Forming)

Putting some organisation into the relationship and connection with these groups, and providing space for them to cross pollinate ideas too.

Largely non-members - provides a way to engage while still 'ring fencing' their participation so that members can interact but can also work independently.

Benefits of Joining Greening of Streaming

- Greening of Streaming is 'Members led' - working groups are undertaking ground-breaking research - a strong ESG message for your stakeholders
- Greening of Streaming has a full time secretariat and is not 'just a badge'
- There are 2 major annual events:
 - One 'live' like our Parliamentary event this year
 - One 'On-line and industry focussed' - see our upcoming Summit
- Sponsoring just one of these events could cost the equivalent of our annual membership fee but these come included
- Up to 12 monthly meetings allowing knowledge sharing; a comparable subscription to a trade publication may cost hundreds per month

Benefits of Joining Greening of Streaming

- Members take it in turns to promote their activities which we then promote on social media
- Greening of Streaming actively promotes our members' activities and achievements to mass media, press and legislators

What do I have to do?

Join up as member (we need your energy and momentum to drive it!)

Get involved in WGs.

- WG1: Help us develop the industry language and measures ('streaming meets SBTI')
- WG4: Be prepared to explore producing energy measurements relating to live streaming events.

Speak at members meetings: Let us know what you are up to that you think others will be interested in and can learn from.

Engage in public policy and public media exchanges (including our own annual summit)

Participate in end to end supply chain innovation.

Members of Greening of Streaming





info@greeningofstreaming.org
www.greeningofstreaming.org