Halo CMM
Community Town Hall
February 7 2024
Democratizing Cross-Media Measurement

The industry’s only advertiser-driven, global, open-source, neutral CMM framework.

Powering locally-owned, industry-wide, adaptable solutions which enable Better Marketing.
Bi-monthly Townhall...

Register here: https://wfanet.org/events/item/3973/halo-community-townhall-meeting
Summit core themes...

1. Making it easier to get data IN to the system
2. Challenges with getting data OUT of the end-users of the system
3. Efficiency, Communications & Go-To-Market issues

Highlighting how the Halo Framework is on its way to being adopted as a credible, validated and fully capable cross-media measurement solution in the market by both marketers and practitioners.
“I'm thinking about how Nestle can deploy this data among our media modelling capabilities and our optimisation analytics at scale...the possibilities are phenomenal.”

“We at Unilever will be using this system in as many markets as possible, as will many advertisers...”

“There might have been more direct routes to get to an outcome...but would these have survived the test of time? I feel we’ve taken a surer route to arrive at a place where we have a future-focused, privacy-safe methodology for measuring R&F...It’s testament to the collaboration.”
Now 8 code releases in! Halo - the industry’s only advertiser-driven, global, open-source, neutral CMM framework - exists to make it easier for the core CMM methodology to be rolled out.

Both based on Halo, Origin and ANA pilot progress across 2023 has been extraordinary. Both platforms can ingest REAL data. Trials later this year (Origin Beta = >30 brands) will be a HUGE moment.

In order to scale these solutions, we will need to find a more reliable means of improving data INPUTS (publisher integration) to the system. Various options exist to ease this issue, including EDP Aggregators, Turnkey EDP solution, VID on device SDK. All of these should be progressed.

Equally, challenges with data OUTPUTS (advertiser account IDs, report automation and campaign nomenclature) are all barriers to efficient access to the systems and use of reports. More (intra-market) collaboration is required to resolve these challenges.
Summit Summary (continued)

- Clearly there are opportunities for **deeper collaboration between markets** (inc task forces and even code sharing, etc). Strategic issues such as these are best dealt with via the Halo SteerCo. But the **governance around this group requires a reset**.

- The benefits of Halo are not universally understood (especially outside of pilot markets). A white paper / position paper is needed to communicate to key industry, regulatory and political stakeholders about the value of a ‘**Privacy by Design**’ solution.

- Led by ACA, a powerful coalition is being formed in Canada with representation from across the industry. The plan is to be a ‘**fast follow**’ market and use Halo as the foundation of their CMM ambition. There are several other markets with the same intention.
Some highlights…
Pilot Progress
Halo Roadmap
2. Brought together >50 funding stakeholders to collaborate on service design
The Origin platform is Beta-ready

The Origin Platform is ready to perform measurements with real data

The Origin UI has been tested by Alpha triallists

Measurements have been validated with realistic data

Panel Exchange is Live with Google & Meta and is being improved for better coverage

Initial VID models have been shared with EDPs for testing

Training improved Beta-entry VID models is in progress and targeted for Amazon EDP onboarding processes.
“We don’t do anything in isolation, we don’t do anything alone...Halo is our partner in this...”
Chloe Dennis, Origin

**Launch Roadmap with Halo Features**

<table>
<thead>
<tr>
<th>Data Partners</th>
<th>Jan - Mar</th>
<th>Apr - June</th>
<th>July - Sep</th>
<th>Oct - Dec</th>
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<tbody>
<tr>
<td>Google (G)</td>
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<tr>
<td>TV</td>
<td>36+ Advertisers onboarded</td>
<td>Incrementality reports</td>
<td>Admin features – accessing reports</td>
<td>Trials UI improvements</td>
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<td>Cross-Media Filtering</td>
<td>Demographic scoring</td>
<td>Slicing outputs</td>
<td>Scaled Infrastructure – launch ready platform</td>
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<td>Report Output</td>
<td>Accuracy thresholds</td>
<td>Report scheduling</td>
<td>Report templates – stretch goal</td>
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<td>Real data integration</td>
<td>Origin API – Schema definition and implementation</td>
<td>Measured by Origin</td>
<td>EDP integration support</td>
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<td>Measured by Origin - Analysis only</td>
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**Product Features**

- **Halo Features** To support the Origin product feature development.
  - Demographic scoring
  - Population services
  - Data availability
  - Report scheduling
  - Beta performance
  - Error logging
  - Report consistency checks
  - HM Shuffle integration
  - EDP integration
  - Turnkey EDP

**Alpha**

**Beta**

**Beta High & Support** Measurement validation

**Measurement Consumer API**

**Campaign Planning (RAP)**

**Campaign Goals** Interactive Event Group search

**2025 scope**
Celebrating a Major Success

- We Produced **Real Campaign** Cross-Media Measurement Reports Using the Halo Framework!

Huge thanks to Comscore and our EDP partners for the hard work to make this happen, and also to the Halo team for all the underlying work!
8 Halo code releases and counting!

- Allows us to scale to more platforms without performance degradation or costs
- Will allow end users to be able to generate outputs quicker and more efficiently

<table>
<thead>
<tr>
<th>2023 Deliverables</th>
<th>2024 Roadmap</th>
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<tbody>
<tr>
<td>Multi cloud support</td>
<td>Fit and Finish</td>
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<tr>
<td>+ AWS Duchy</td>
<td>Scaling adoption</td>
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<td>MPC research to improve performance</td>
<td>MPC Performance improvements</td>
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<td>~50x</td>
<td>R/F Planning &amp; Forecasting</td>
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<td>Improved Reporting API</td>
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<td>Privacy Budget enhancements</td>
<td>2X queries allowed</td>
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<td>2X queries allowed</td>
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<td>Release Automation</td>
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<td>Incorporation of Population data</td>
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Some highlights…
Easing Integrations
Currently there is a big lift required to integrate (and maintain integration) as an Event Data Provider (EDP).
We have three solutions in focus, each with different benefits…

<table>
<thead>
<tr>
<th></th>
<th>Large Pubs</th>
<th>Pubs without logged in users</th>
<th>Small Publishers</th>
<th>DSPs</th>
<th>100s of Publishers</th>
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<tbody>
<tr>
<td><strong>EDP Aggregator:</strong></td>
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<td>Entities (e.g. DSPs) integrate data from multiple publishers.</td>
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<td>✅</td>
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<td><strong>Turn-Key-EDP (OSS EDP stack):</strong></td>
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<td>High quality, production ready, ref implementation of key components, required by EDPs for integration..</td>
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<td>✅</td>
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<td>✅</td>
<td>✅</td>
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<tr>
<td><strong>VID-on-device:</strong></td>
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<tr>
<td>On-device SDK that can be adopted by publishers to perform VID labeling on device, enabling integration with EDPs.</td>
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<td>✅</td>
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Next steps

EDP Aggregator
● Approach measurement companies, DSPs, SSPs, etc with a proposal to get feedback and find their willingness to host an aggregator node.

Turn-Key-EDP (Open Source EDP)
● Seek feedback from new EDP partners on the onboarding experience.
● Explore whether Halo has capacity to build the open source solution.

VID-on-device
● Continue to scope the project (with partners IAB Tech Lab)
● Weigh the merits for when to start the mission (considering focus is on Origin Beta)
Some highlights...
End User Enablement
Challenges in CMM

We are starting to see the problems...earlier we had coverage gaps...now getting like to like measurement across media is the key challenge - Group M

While MMM's can provide channel level insights, but good audience/customer level insights are hard without a good CMM - Ovative

Lot of questions on the quality and consistency of data. Need trusted sources of data that is all encompassing cross cross platform and audience segment level data - Pepsi

Opportunities with Halo

This is the start...we have a much richer data set, and allows us to identify opportunities to use these data sets to drive the future of media planning - OMD

We need to tweak plans with this new data sets and drive business impact for clients - OMD

Planning capabilities will be key to allocate investments more effectively and efficiently, once we have this common and better data to counting impressions - Group M

Making it easier to integrate, improve awareness and understanding of the solution. And also addressing the outcomes question - Ovative

Opportunities to Differentiate

We need to keep consumer experience & privacy expectations front and center, this privacy centric tool will allow our agencies to improve the overall ad experience for customers - Pepsi

We will have more time to focus on the real issues of better planning, strategies, optimisations - than finding good source of data - Ovative

With this data our team will have the opportunity to really drill down into the data and ask the right questions and create better products and processes that drive better outcomes for clients - OMD
Enabling advertiser accounts: Origin Learnings

Origin’s ambition in 2024 is to onboard 100+ advertisers and one to two additional EDPs

The challenge

- Each advertiser owns multiple buy-side accounts for each EDP, with ownership dispersed across different teams.
- Onboarding our first six triallists took several months, with considerable manual effort to identify all Account IDs.
- We need a robust process for advertiser onboarding to launch in 2024, which caters for explicit advertiser consent and increased platform coverage.
Campaign Matching

The challenge
Campaign matching is complex, manual and time consuming. This poses a threat to platform adoption for advertisers and agencies who need to spend a significant amount of time to identify their campaigns.

Early feedback from advertisers support an easier way to identify and match their campaigns:

“If there was a whole market’s worth of campaigns, how would I find the campaigns that I’m after?”
– Trialist A, P&G.

“Our campaign names are not simple, so you really have to know the data you’re looking at to identify the right ones.”
– Trialist B, P&G

Campaign matching is critical not only for the front end but also for increased accuracy of the VID model and for any advertiser-facing API.
Measurement Consumer API Roadmap

1. Find campaigns across publishers
2. Tie together cross-pub campaigns into Report Sets
3. Create reports
4. Consume results
5. Schedule reports for future delivery

Requirements Scoping Research
- Data Delivery Requirements
- Campaign Metadata Structures
- Reporting Dependencies
- Planning Dependencies
Moving beyond the UI

The Origin back-end services transform UI inputs into Halo data objects, including mathematical set operations (Reporting Sets).

Create a new base report

Confirm base report details
Please review and confirm the details of your report. Please note that any edits will be reflected across all reports.

- Date Range:
  - Start Date: 01 June 2022
  - End Date: 20 July 2022

- Metric Groups:
  - Market UK Report - July - Childrens toys & games
  - Campaign Group: Digital Video Completion Status
  - Publisher Contributions: Total Reach (% of audience)

- Display Name:
  - Sales

- Metric Calculation Details:
  - Metric Spec: Total Reach (% of audience)
  - Metric Spec: Total Reach (% of audience)

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What would you like to see?

Show me reach over time.

RUN ANALYSIS   I AM FEELING LUCKY

Title
Reach Over Time

Dimensions
EventDate

Measures
Reach

Filters
Sort
EventDate

Limit
Show all

Chart
LineChart

Reach Over Time

2,500,000
2,600,000
2,700,000
2,800,000
2,900,000


EventDate

DOWNLOAD CSV
Next steps

● **End-User Collaboration**
  ○ There are high expectations from the end users from Halo based instances, by developing more capabilities to evaluate, optimise and plan based on this high quality cross media data. We will be working closely with the practitioner ecosystem to research, identify and build relevant infrastructure.

● **Simplify End-User Onboarding**
  ○ We have identified key challenges for end-user onboarding including (1) Product Awareness/Education (2) Account ID Identification Automation (3) Cross-Platform Campaign Matching - which will be key areas of focus for the Halo team.

● **Improved Query & Analysis Capabilities**
  ○ There is a clear need to enable integration with different end-user systems. We will focus on developing a ‘Measurement Consumer API’ framework that will enable scaled integration with existing planning systems as well as robust UI and potential visualization solutions for those who want direct access.
Some highlights…
Appetite from other markets
New Advisory Groups
Stakeholders ACA secured:

**Publishers:** Google, Facebook, Amazon, TikTok

**Broadcasters:** Bell Media, CBC, Corus, Quebecor, Rogers Sports & Media

**Agencies and Associations:** AfC, cmdc, thinktv
Advisory Groups

HITAG

[Halo Industry Technical Advisory Group]

Andrei Lapets
VP Eng & Applied Cryptography, Magnite

Andrew Covato
Founder @ Growth By Science

Brad Smallwood
Founder @ Anonym

Daniel Slotwiner
SVP Attention @ DV

Dennis Buchheim
President @ ThinkMedium

Ron Pinelli
SVP @ MRC

Winston Li
Founder @ Arima
Advisory Groups

MPAG
[Media Practitioner Advisory Group]

Kristina Kaganer
VP Product Development

Yee Pang
Senior Partner, Group Director at GroupM

Rhian Feather
Head of Planning for Omnicom UK

Troy Neidermire
Vice President - Measurement & Enabling Solutions, Ovative