Kaltura Analytics

Information Guide

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Data Origins for Analytics

- **Video Playback** –
  - Kaltura players (KDP and HTML5) send events to server
  - Native players in iOS and Android are ‘wrapped’ with JS that report the different events
- **Bandwidth** –
  - Akamai
  - Kaltura Apache logs (things that aren’t cached in Akamai like thumbnails)
- **Storage** – Kaltura DB

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Missing Data Origins

- Missing Playbacks
  - Non-Kaltura players – like in STB
  - Native Apps
  - Syndication feeds

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Playback Analytics Workflow

Flash and HTML 5 Players

Player Events

Apache Server

Every 1 hour:
Logs from Apache are sent

Kaltura Server

Centralize all logs

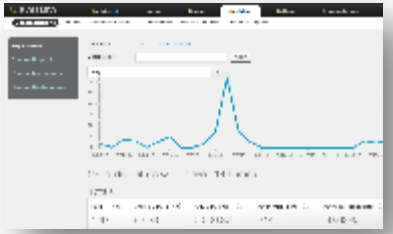
ETL Server

Every 1 hour:
1. Retrieve logs from Kaltura server
2. Parse logs
3. Populate DWH with raw data

Data Warehouse

Every 2 hours:
- Run aggregations
- populate tables

KMC



Per end-user's query:
Data is retrieved from DWH, based on the client time zone

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Playback Analytics Notes

- The aggregated data is saved in the DWH on an hourly basis in order to deal with time zone differences.
- DWH time itself is EST
- The reports in the KMC are created based on the client time
- The “plays” value in KMC entry data and “views” value in KMS are updated every 24 hours and not every 2 hours like “plays” and “player impressions” in KMC Analytics.

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Player Events

1. WIDGET_LOADED
2. MEDIA_LOADED
3. PLAY
4. PLAY_REACHED_25
5. PLAY_REACHED_50
6. PLAY_REACHED_75
7. PLAY_REACHED_100
8. OPEN_EDIT
9. OPEN_VIRAL
10. OPEN_DOWNLOAD
11. OPEN_REPORT
12. BUFFER_START
13. BUFFER_END
14. OPEN_FULL_SCREEN
15. CLOSE_FULL_SCREEN
16. REPLAY
17. SEEK
18. OPEN_UPLOAD
19. SAVE_PUBLISH
20. CLOSE_EDITOR
21. PRE_BUMPER_PLAYED
22. POST_BUMPER_PLAYED
23. BUMPER_CLICKED
24. Preroll Started
25. Midroll Started
26. Postroll Started

Green – used in KMC Analytics Red – not used

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Player Events

27. Overlay Started
28. Preroll Clicked
29. Midroll Clicked
30. Postroll Clicked
31. Overlay Clicked
32. Preroll_25
33. Preroll_50
34. Preroll_75
35. Midroll_25
36. Midroll_50
37. Midroll_75
38. Postroll_25
39. Postroll_50
40. Postroll_75

Green – used in KMC Analytics Red – not used

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Bandwidth Analytics Workflow

Kaltura Apache Server

every 24 hours:
Logs from Apache are sent

every **1 hour**:
Logs from Akamai are sent

Kaltura Server

Centralize all logs

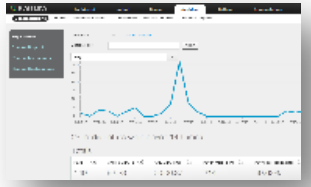
ETL Server

Every 1 hour:
1. Retrieve logs from Kaltura server
2. Parse logs
3. Populate DWH with raw data

Data Warehouse

Every 2 hours:
- Run aggregations
- populate tables

KMC



Per end-user's query: Data is retrieved from DWH, based on the client time zone

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Bandwidth Analytics Notes

- As data from Kaltura is every 24 hours and data from Akamai is every 1 hour – some change in BW calculation can be seen once Kaltura data is added, once a day.
- The BW logs coming from Akamai sometimes contain events not only from the last hour
  - this might cause a retroactively update of the data.
  - The recalculation of historic data can also cause a delay in the aggregation process (takes more than 2 hours)

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Storage Analytics Workflow

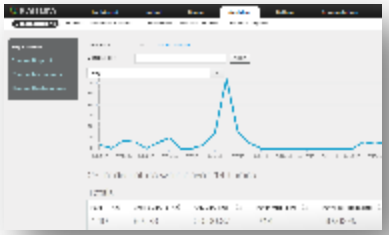
Kaltura Server

Every day on the previous day:
Copy storage data from Kaltura DB

DWH

Every 24 hours
- Run aggregations
- populate tables

KMC



Data for reports is retrieved from DWH, Based on the client time

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Bandwidth and storage Analytics notes

- Data is updated on a daily basis rather than hourly
- Kaltura server and DWH are in EST timezone

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Analytics APIs

- All player events can be accessible through API
- All data in the KMC is available through API as well
  - reports:getGraphs
  - reports:getTotal
  - reports:getTable
- DB data can be accessible through SQL queries – by Kaltura
  - through Kaltura Support and/or Custom Reports

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Billing

- Done based on these:
  - BW
  - Storage
  - Plays
  - Transcoding
- Billing system is getting its input from Kaltura DB – same as KMC Analytics
  - Note - Plays on the KMC might be different than plays in billing due to timezone differences – client timezone in KMC vs. DB timezone (EST)

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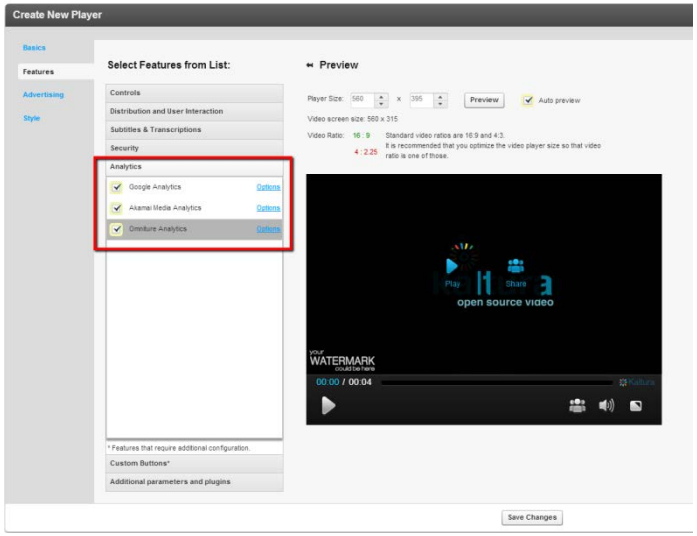
3rd Party Analytics Plugins

- Player plugins to report player events directly to the 3rd party
  - Comscore
  - Akamai
  - Omniture
  - Google Analytics
- Data will be presented on the 3rd party app
- Some can be activated from the KMC using a check-box only
- Possible Kaltura-3rd party data mismatch:
  - Timezone differences
  - Events are not identical (firstPlay vs. doPlay)
  - Turnaround time for data update



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