
AWS
re:Invent
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NET317

Improve video streaming observability with Amazon CloudFront & CMCD

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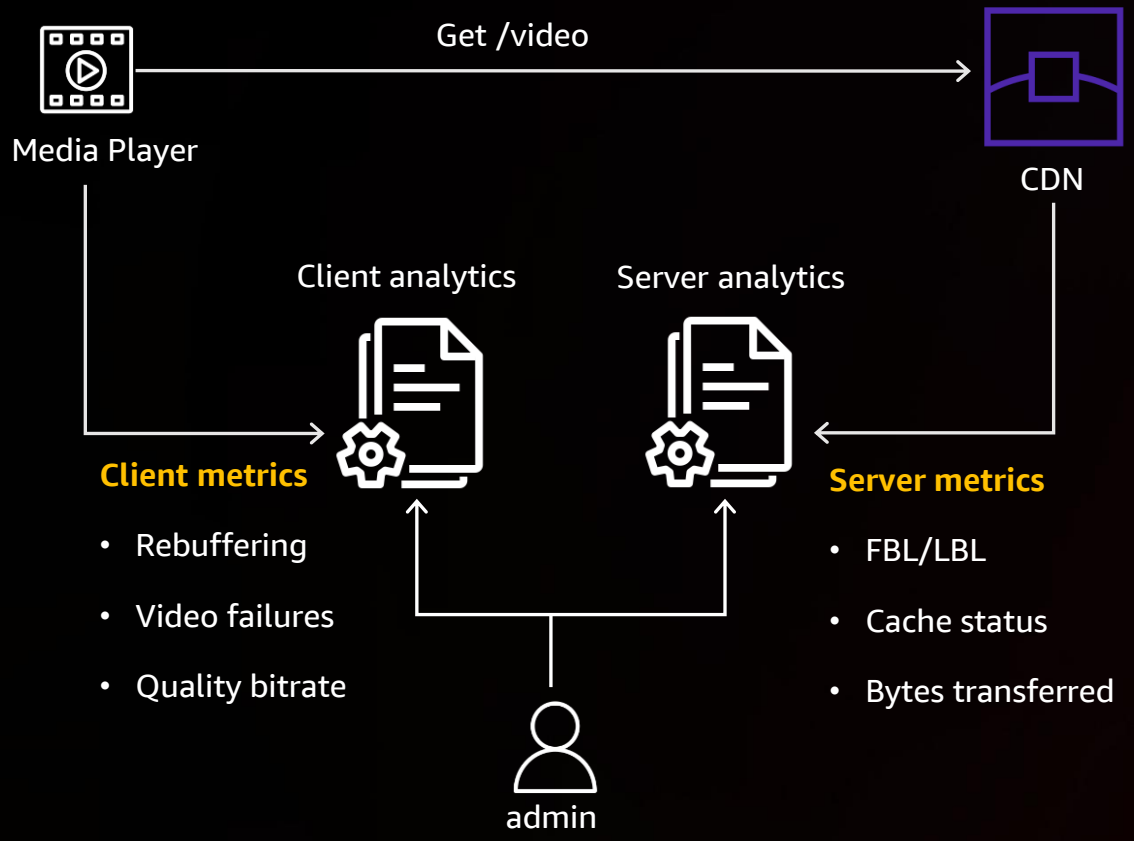
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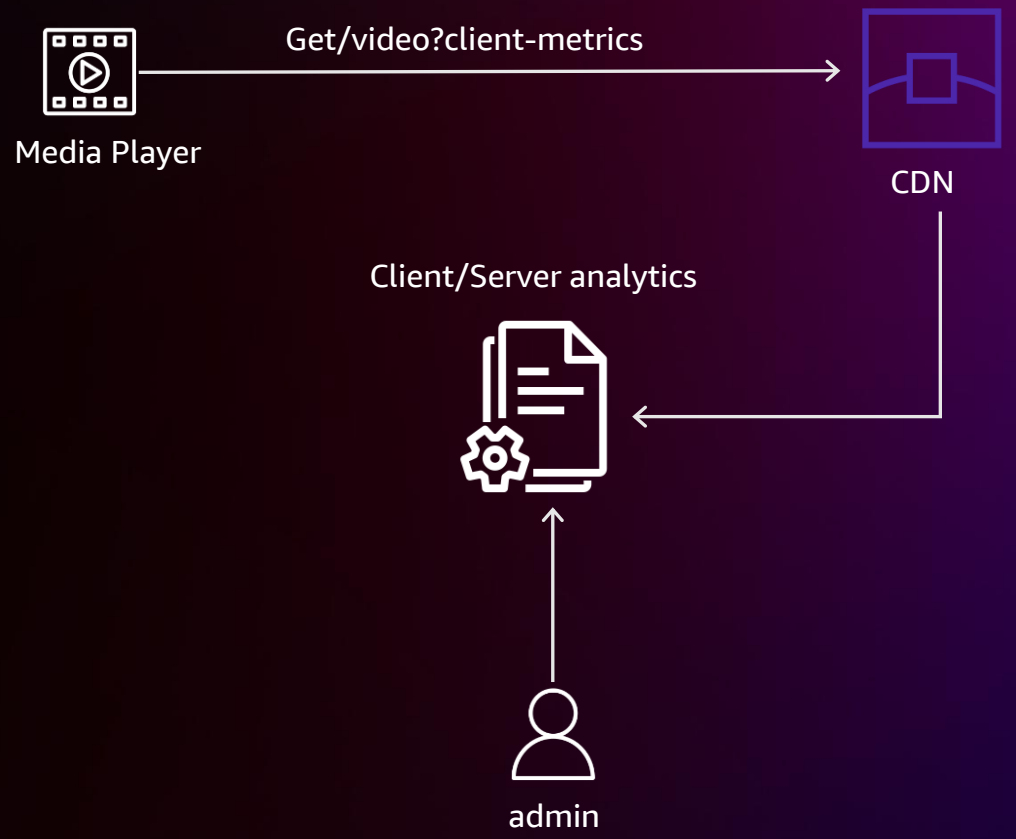
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Why CMCD?

Without CMCD



With CMCD



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How CMCD looks like and where it goes?

Request:

https://drgt2mhriu0nm.cloudfront.net/video/hls/ocean/ocean_Ott_Hls_Ts_Avc_Aac_16x9_1920x1080p_30Hz_8500Kbps_00012.ts?**CMCD**=bl%3D29900%2Cbr%3D8934%2Cd%3D3000%2Cmtp%3D108400%2Cot%3Dav%2Csf%3Dh%2Csid%3D%221a8cf818-9855-4446-928f-19d47212edac%22%2Ctb%3D8934

Log field *cs-uri-query* :

CMCD=bl%3D29900%2Cbr%3D8934%2Cd%3D3000%2Cmtp%3D108400%2Cot%3Dav%2Csf%3Dh%2Csid%3D%221a8cf818-9855-4446-928f-19d47212edac%22%2Ctb%3D8934

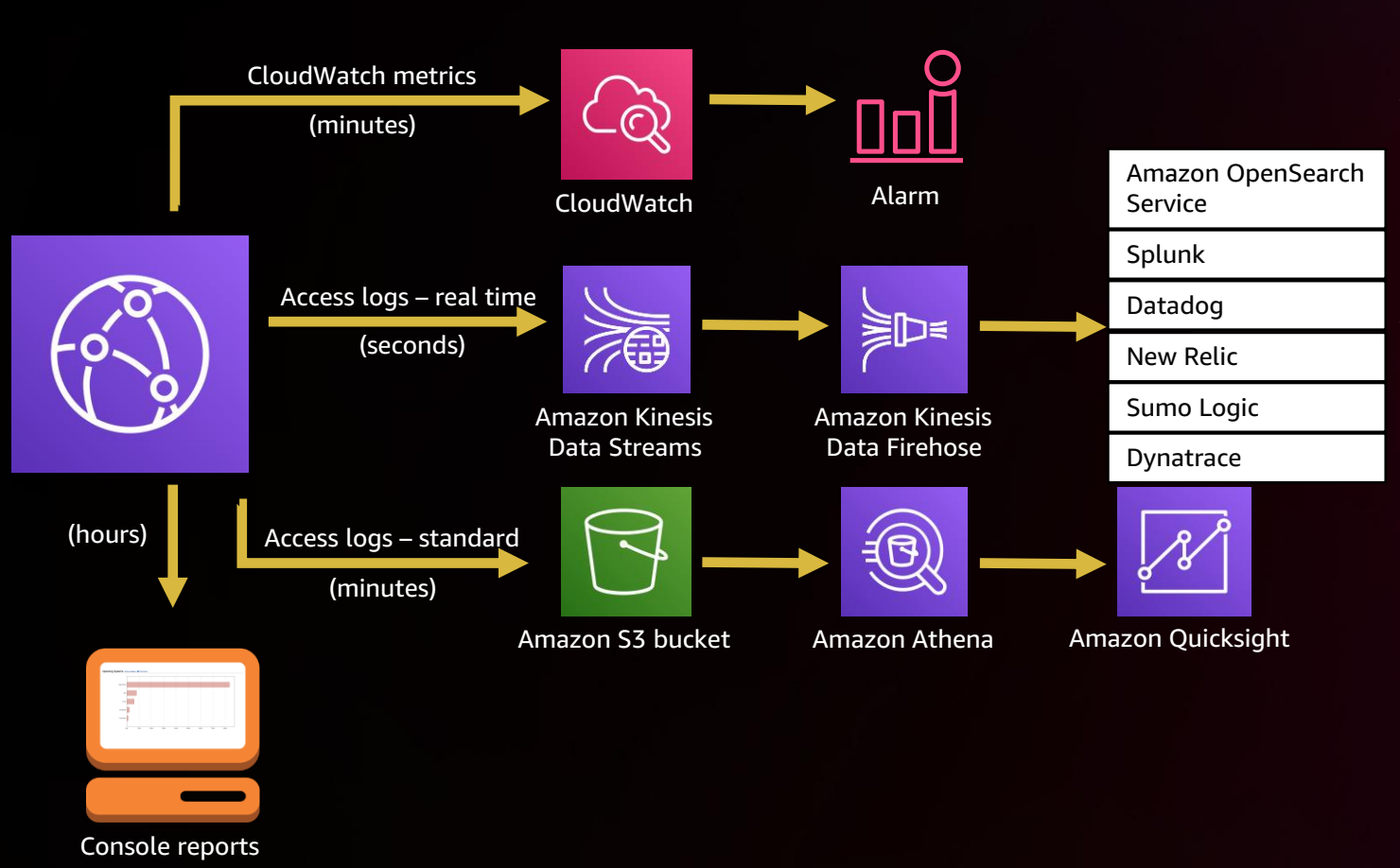
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- Buffer Length
- Bit Rate
- Duration
- Measured Throughput
- Object Type
- Streaming format
- Session ID
- Top Bit Rate

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CloudFront observability



Use case: simple dashboards, monitoring (e.g., alarms on 4xx/5xx errors)

Use case: real-time custom dashboards, troubleshooting, clickstream, tracking

Use case: ad hoc analytics or troubleshooting

Trends, monthly reports

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CMCD use cases

- Viewers' quality of experience (QoE) dashboard
- Cost of delivery per viewer (bytes served per session)
- Troubleshooting and root cause analysis
- On the CDN
  - Session-based capacity management – maximum throughput request
  - Pre-fetch hints
  - Access logs session ID correlation to client/server
- Players' support
  - Dash.js (bit.ly/3CHAd8i), hls.js (github.com/video-dev/hls.js), Bitmovin and Datazoom (bit.ly/3Tr9jIm), Akamai Media Player (bit.ly/3CHAR5I), ExoPlayer (bit.ly/3s2W30Y)

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Observability questions

- Are you planning to add support for CMCD data in your players?
- Would you be interested in CloudFront making use of the data to optimize delivery?
- If you plan to add CMCD data, do you plan to use it as complementary to your current client-side metrics analysis vendor?
- What other metrics would you like to add to your dashboard?

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Thank you!



Please complete the session survey in the **mobile app**

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