

Youtube buffering has increased by 10%

Clarifying Question:

1. Buffering Calculation? Duration of Buffering/Average View Duration
2. What type of youtube video have we seen this issue? Trending Videos, Primarily long videos
3. Timeframe of Drop? Single Platform/Device? Dropped gradually from last 3 days across devices & Platform
4. Any specific insight about Type of Users(New vs Repeat), Demography, Geography? Across all type of users in india

Summarization

1. Youtube buffering has increased by 10% on Trending long form of Videos and this drop is gradual from last 3 days across devices, platforms and user type in india.

High Level Strategic Importance

1. High Buffering -> High Bounce & Low watch time which will in turn lead to reduction of overall watch time on youtube and hence not only reduction in the advertising revenue but also customer satisfaction.

Approach

Factor to consider:

1. System Related
2. External Factors
3. Internal Factors.

1. System Related

Metric Definition

Data pipeline Broken

Incorrect Instrumentation

2. External Factors

Slow internet connection

Natural Disaster

VPN adoption Increase

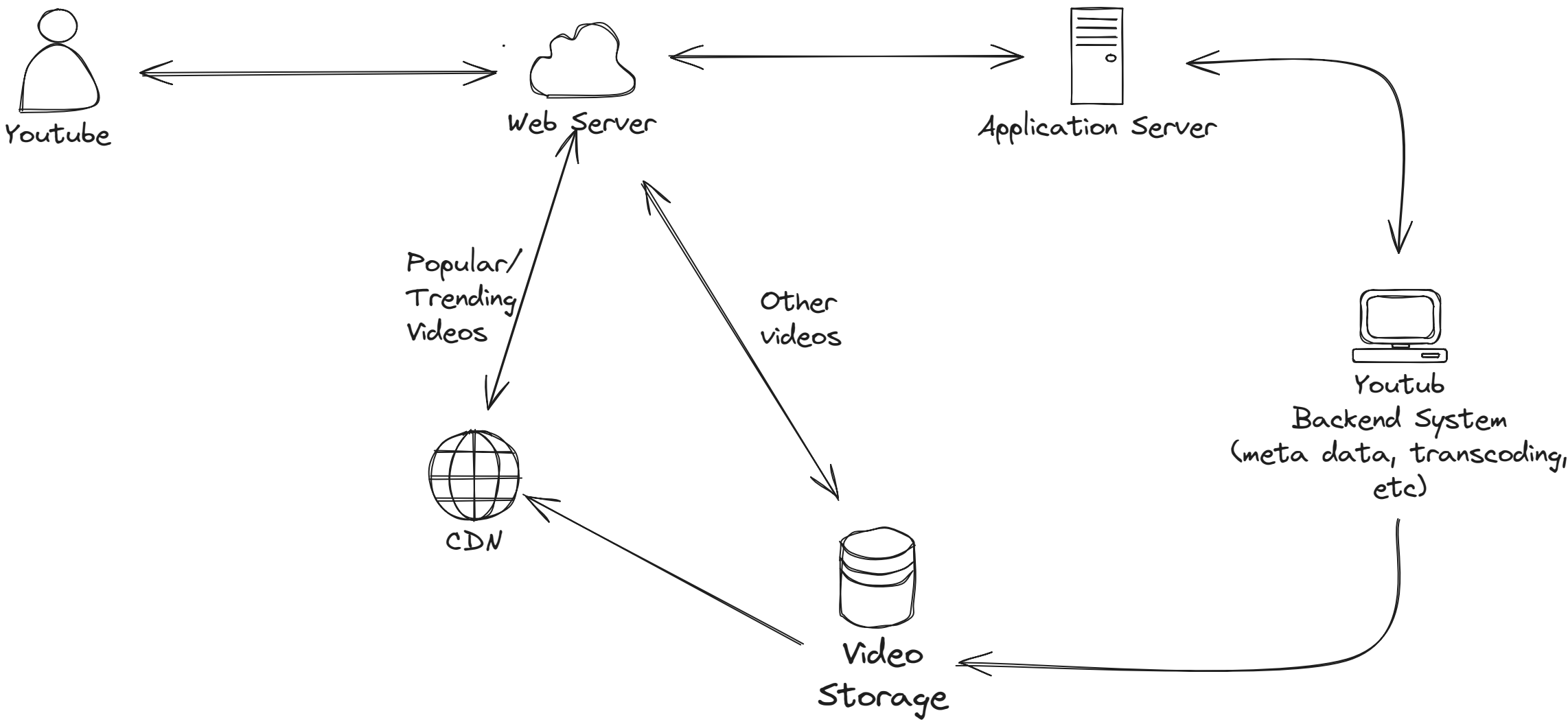
Hacking/Malware Attack

3. Internal Factors

New Incompatible Update

New A/B experiment

Funnel Analysis



What can be the issue?

Inefficient CDN Routing

Users are not connected to the Nearby CDN that's where the data has to be fetched for a large number of user from very far leading to delay and Buffering. This can be because Youtube underestimated the traffic and leading to insufficient capability.

CDN Cache Updating Delay

Trending videos or popular videos are not there in the latest cache or latest edit of the videos are not their in the cache.

Video Processing Delay

Popular youtubers uploading super high resolution with complex effects.

➡ Youtube rollout changes for improving routing CDN routing mechanism which is not performing as expected.