Desired Outcome: Increase Time Spent Listening on the App

What is Spotify?

Spotify is a digital **music**, **podcast** & **video** service founded on 23 April 2006 by Daniel Ek and Martin Lorentzon.

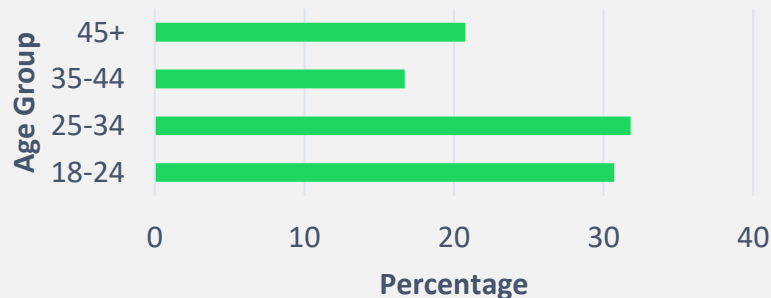"Music for everyone"

70 Million Songs   **2.6 Million** Podcasts

Mission: Unlock the potential of human creativity—by giving a million creative artists the opportunity to live off their art & billions of fans the opportunity to enjoy and be inspired.
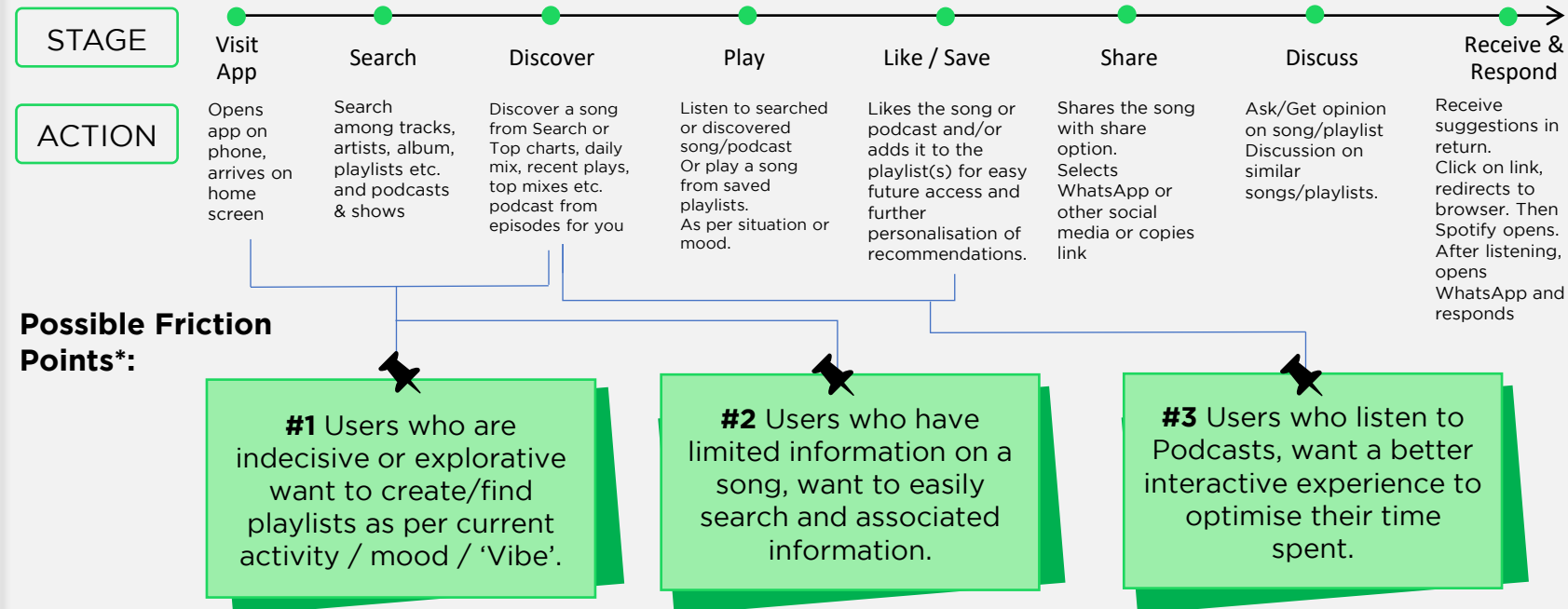
456 Million MAU   **195 Million** Paying Subs

Spotify User Profile

Age Group / Percentage bar chart:
- 45+
- 35-44
- 25-34
- 18-24
- (x-axis: 0, 10, 20, 30, 40)

What is the current listening experience? (User Journey):

STAGE

| Visit App | Search | Discover | Play | Like / Save | Share | Discuss | Receive & Respond |

ACTION

- **Visit App:** Opens app on phone, arrives on home screen
- **Search:** Search among tracks, artists, album, playlists etc. and podcasts & shows
- **Discover:** Discover a song from Search or Top charts, daily mix, recent plays, top mixes etc. podcast from episodes for you
- **Play:** Listen to searched or discovered song/podcast Or play a song from saved playlists. As per situation or mood.
- **Like / Save:** Likes the song or podcast and/or adds it to the playlist(s) for easy future access and further personalisation of recommendations.
- **Share:** Shares the song with share option. Selects WhatsApp or other social media or copies link
- **Discuss:** Ask/Get opinion on song/playlist Discussion on similar songs/playlists.
- **Receive & Respond:** Receive suggestions in return. Click on link, redirects to browser. Then Spotify opens. After listening, opens WhatsApp and responds

Possible Friction Points*:

#1 Users who are indecisive or explorative want to create/find playlists as per current activity / mood / 'Vibe'.

#2 Users who have limited information on a song, want to easily search and associated information.

#3 Users who listen to Podcasts, want a better interactive experience to optimise their time spent.

*Here, initial ideation done + insights taken from 5 User Interviews/calls.
Checks done through secondary research: existing implementation efforts + de-prioritisations by Spotify.

Other Identified Friction Points:

#4: No social engagement features like comments, which would add user provided lyric breakdowns & trivia – Was proposed in Spotify community but marked closed due to inadequate votes. Link

#5: Video streaming services – Spotify is starting to break into this avenue after a long struggle. It introduced canvas & video podcasts for the same purpose. (Reels currently in beta). Adoption needs to increase for further prioritisation.
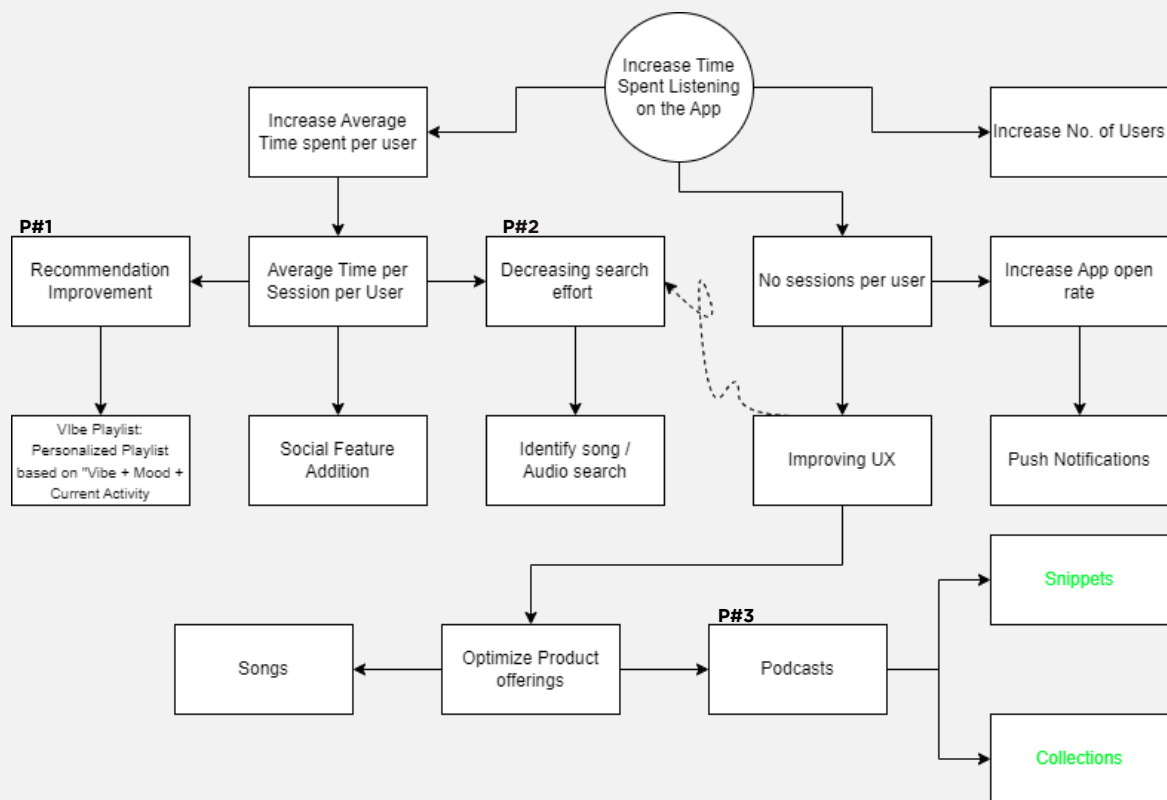
Methodology Used: Design Thinking –> Empathize, Define, Ideate, Prototype (Wireframes)

Further KPI Tree Breakdown of Metric:

How do these friction points serve to increase listening time? (Hence, is a problem impacting listening time)

Increase Time Spent Listening on the App

Increase Average Time spent per user | Increase No. of Users

P#1 Recommendation Improvement | Average Time per Session per User | **P#2** Decreasing search effort | No sessions per user | Increase App open rate

Vibe Playlist: Personalized Playlist based on "Vibe + Mood + Current Activity | Social Feature Addition | Identify song / Audio search | Improving UX | Push Notifications

Songs | Optimize Product offerings | **P#3** Podcasts → Snippets / Collections

Problem Statement: Users who listen to Podcasts, want a better interactive experience to optimise their time spent

In above, green text are ideated solutions to the problem statement.
Since the problem itself wasn't prioritised, those solutions were de prioritised as well. In case of Platform hooks, Spotify is planning to add NFTs.
Song feature is very optimised for user experience in Spotify. So, we can dive into podcasts as a problem.

Problem Prioritisation:

Lets look at some key considerations to prioritise the problem.	Problem #1	Problem #2	🏅 Problem #3 ☑
Does it improve listening time metric?	Yes	Yes	Yes
How are users currently solving this?	• Current experience **not as personalised** compared to some competitors - survey. • Shows already curated playlists in the mood tabs.	• Use **Shazam** to search for audio - by default directs to Apple music, leading to **drops**. • Current apps have textual **lyrics based search** – works for prominent key words of lyrics.	• Users cannot decide on the next content to watch just from recommendations. • Even after watching desired content, users have to note down insights on external app.
How much of user base will be impacted?	**Moderate:** 24% of Surveyed Spotify users didn't like current recommendations.	**Moderate:** 28% of Surveyed users find song discovery a challenge despite lyrics search feature.	**High:** • 67% Podcast-users drop after watching two podcast episodes. • 72% Podcast-users want to save information they hear.
How many users estimated to reach?	**High:** Reach all Spotify users	**Low:** Out of above 28%, 17% found textual lyrics search cumbersome as they had to think of prominent keywords.	**Moderate:** 74% Surveyed users listened to Podcasts.
Adoption and Penetration Scope	• Global Market • Easy Adoption	• Red ocean market • Moderate Adoption	• Global Market • Easy Adoption
Competition	**High:** YT Music followed by Apple music was most preferred by non-Spotify users in survey.	**Moderate:** Apple Music has audio search feature after shazam acquisition	**Moderate-High:** Google and Apple have separate podcast apps.
Selection Criteria (RICE*):	• High Reach • Moderate Impact • Moderate Confidence	• Moderate-Low Reach • Moderate Impact • Low Confidence	• Moderate-High Reach • High Impact • Moderate Confidence

*In this prioritisation framework, as tech bandwidth is assumed infinite, the effort is assumed to be constant.

Lets zoom in on the selected problem, see what problem they face, why and more. This section compiles 5 interviews and a survey with 30 responses. Secondary research supplemented the findings.

The Podcast problem:

Why do Podcast Listeners need a better experience?

- Help organise & retain insights from informative podcasts.
- To optimize viewing/listening time towards content more suited to their tastes.
- Help viewers to multi-task while listening to a podcast.
- Help viewers overcome 'paradox of choice'
- Increase view intent

Primary Validation:

74%
Of Surveyed Users listened to Podcasts.

72%
Of Surveyed Users wanted to save information

67%
Surveyed Users drop after watching 2 episodes.

63%
Surveyed Users struggled to choose what to watch next

Why is Spotify their choice?

- A one–stop shop for all audio.
- Clean & user-friendly UI
- Freemium model
- Flawless multiplatform integration

Secondary Validation:

Why would Spotify want to implement this now?

19%
Spotify's Market Share - Podcasts

31%
Podcast market size growth rate (2021 - 28)

$ 20.32 B
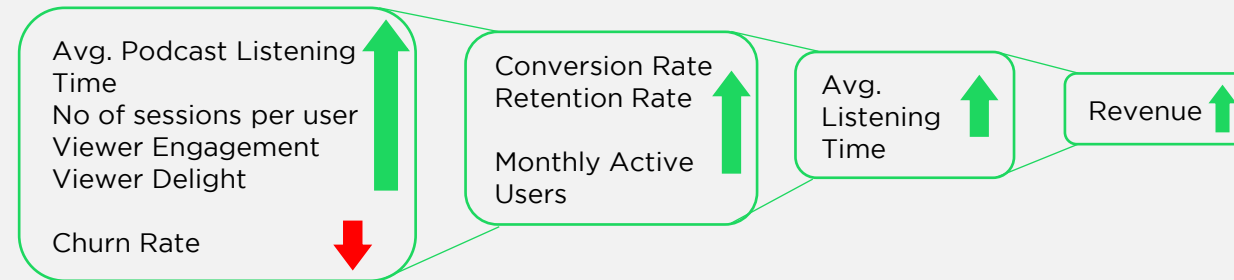Global Podcast Market Size

420 M
Global Podcast Listeners

62 %
% Podcast Listeners in US

Source: Google web search

What is the value generated by solving this?

For Business:

Avg. Podcast Listening Time
No of sessions per user
Viewer Engagement
Viewer Delight ⬆️

Churn Rate ⬇️

Conversion Rate
Retention Rate

Monthly Active Users ⬆️

Avg. Listening Time ⬆️

Revenue ⬆️

- By implementing solutions to optimise time, Spotify will gain additional **user data** on their **preferences**, which will help generate more personalised **recommendations** and push popular content.
- By optimising time, user experience will increase leading to more overall **user traction**

For Users:

Save Time

Increase Viewing Intent

Solve choice paradox

Easy Organisation

Who is facing this problem?

Jake Peralta
Age: 25
Location: Gurgaon
Occupation: PM

Bio: He likes to listen to podcasts when doing mundane tasks like commuting or cleaning. He also works out daily and is looking for a more productive alternate to his usual playlist.

Wants & Needs:
- Wants to get good entertainment out of his time.
- Wants to select which episode will be worth his time quickly.

Frustrations:
- Cannot decide if he wants to invest his time on an episode.
- Doesn't like all episodes hence wants a way to selectively watch what he likes.

Amy Santiago
Age: 28
Location: Noida
Occupation: Designer

Bio: She commutes a lot from Delhi to Noida for work. She listens to songs or podcasts during her morning routine to set the tone for the day and during her commute hours.

Wants & Needs:
- Wants to gain knowledge.
- Wants more productive alternatives to music.
- Wants to save insights conveniently somewhere while carrying out her daily tasks.
- Also wants to share favourite key takeaways with friends.

Frustrations:
- Cannot decide if she wants to invest his time on an episode.
- Cannot organise key moments and takeaways.

User Narratives

" When I want to view the Joe Regan experience on Spotify, I sometimes do not resonate with a few guests or topics and start skipping through the whole clip and ultimately deciding to drop off and watch something else. I feel there is always something interesting on YouTube. "

" I recently catch up on Ted Talks Daily this week during my morning routine, I found some insightful pointers that I had to remember to take down later on. I had to replay that later in the evening again after work to fill up on what I missed. "

Lets take a look at the proposed solutions to see scope and impact of each, and further prioritise it.

Collections

A Bookmarking feature allowing users to revisit podcast segments with ease.

How it Works? Easily save a clip with a swipe-up and refer back to it later on. You can revisit it in 'Collections', organise it & share it.

What is the benefit?

For Viewers
- Easy Insight Review
- Prevent context loss when revisiting
- Save the time spent re-viewing podcast
- Share the clippings with your friends

For Creators
- Quick Engagement boost
- Watching & sharing clips increases viewers
- Improves Brand visibility
- Understand audience's preference by analysing engagement & usage data

For Spotify
- Understand viewer engagement & viewer preference by analysing user data
- Push targeted relevant content
- Sharing increases user traction
- Better User Experience / Delight

Podcast Snippet

A Preview feature letting users hear a 10-sec preview of podcast, aiding decision.

How it Works? Users can easily pick which podcast to watch next by long pressing the thumbnail to get a short pop-up preview. Long tap or hover on the episode to play the preview, that is set by podcast creator.

What is the benefit?

For Viewers
- Easily pick your next watch
- Viewing snips will increase view intent
- Save decision time
- Prevent bad experience from watching unwanted content

For Creators
- Quick Engagement boost
- Snips helping user decisions will lead to more views
- More intent watchers leading to better reviews more likes
- Convey contextual relevance easily

For Spotify
- Reduce Podcast drop-offs
- Increase intent watchers
- Increase listening time
- Increase subscribers

Prioritization:

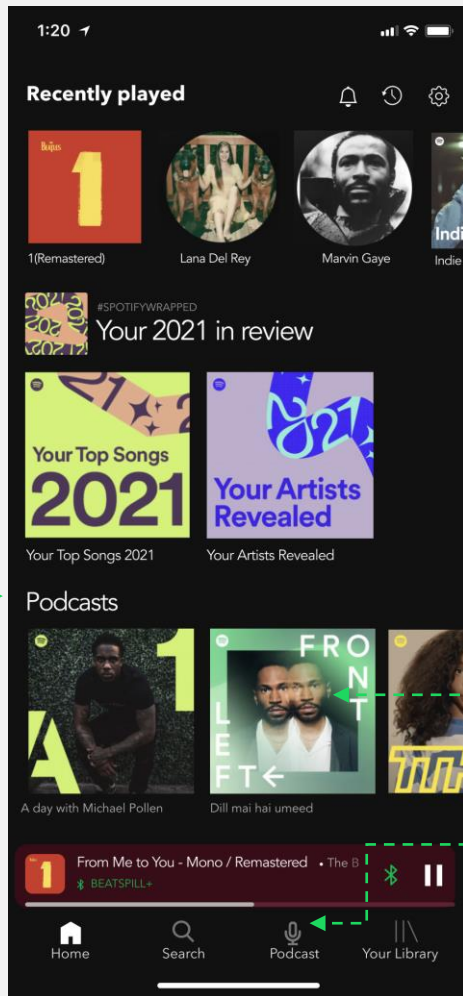| Solutions	Collections	Podcast Snippets
Reach	2	4
Impact	4	3.5
Ease of Use	4	4.5
Discoverability	3.5	4
Final Score	28	**63**

Podcast Snippets ☑

- In above prioritisation, RIED framework is used instead of standard RICE.
- All scores are given on a 1-5 scale based on relevance.
- Assumption is infinite tech bandwidth. Hence effort is constant. Ease of use is used instead.
- Discoverability is taken into account instead of confidence as it is more important for us that the feature is intuitive and discoverable for more adoption as podcasts is relatively new to Spotify.
- Impact is calculated on the target user case.
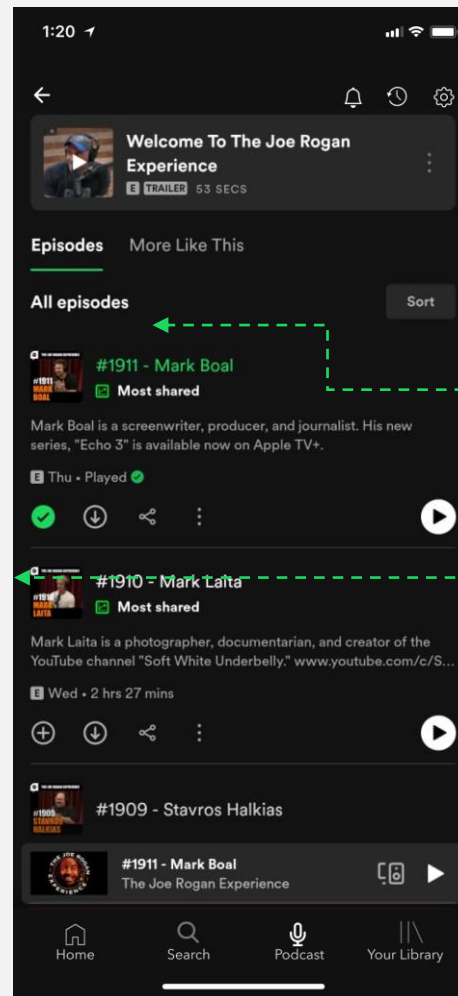- Final score = (R*I*E*D) / 4

Wireframes

Home Screen

Podcasts can be accessed through suggestions, recent plays, your shows, episodes for you etc.

If the podcast is single episode (or audiobook or show), then we can use preview in home screen as well

Easy access to podcast. Improved visibility will lead to more user traction to the feature.

We currently access a podcast's page through the podcast shown on home screen or search screen.

Podcast Show Page

List of episodes on the podcast's page.

Pick the title you want to know more on, tap on the thumbnail or hover on it for auto play.

On scrolling down in the home page, we see the list of episodes. Here we can view the previews by long tapping the thumbnail or hovering over it.

Preview Pop-up

Watch or hear the pop-up preview, depending if the content is video or audio only respectively
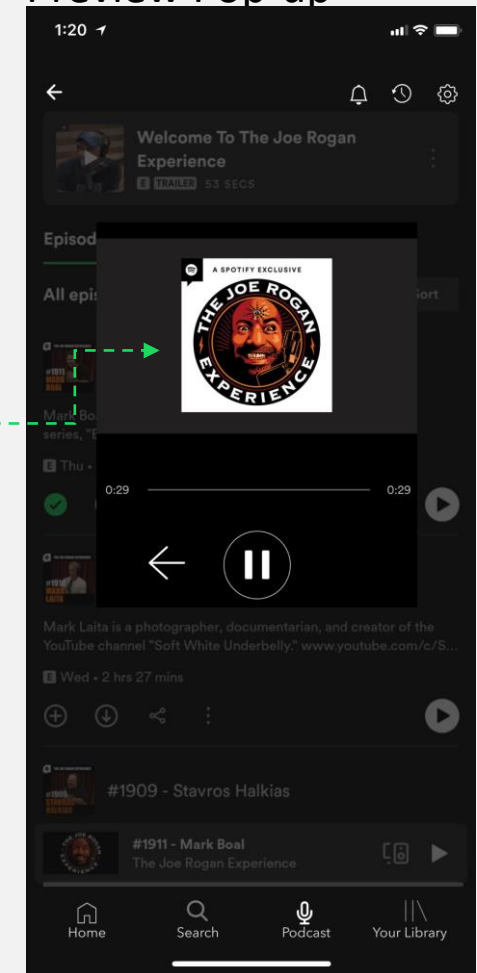
We will see a pop up view of the preview, after which we will revert back to the previous screen.
After this we can either continue to scroll down or long tap again to repeat the preview. If no action taken, the next episode's preview will automatically play.

High Level Design:
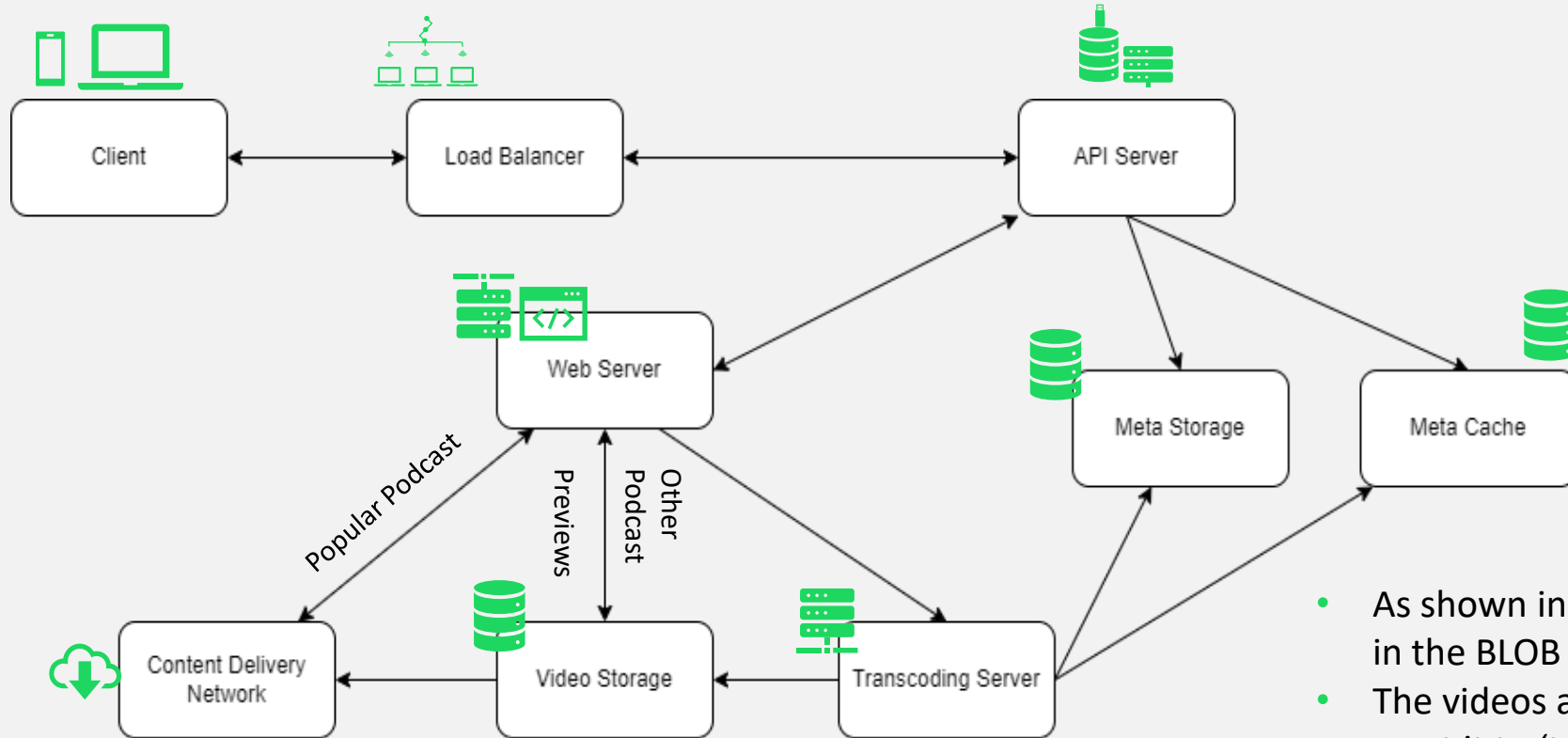
- As shown in the flow diagram, the previews will be stored in the BLOB video storage unit.
- The videos are excluded from API servers as we don't want it to 'talk' to other databases and handle preview video related requests.
- The web server will route the request to the video storage unit.
- CDN will be used for fast loading purposes as a viewer might want to frequently request previews.

Key Metrics

North Star Metric: Time spent listening

Type	Priority	Metrics	Details
Engagement	Med	• CTR Ratio = Average CTR after 'Snippet' was launched vs Average CTR before snippet was launched. • Watch time ratio = Average watch time of a Activated user vs An inactivated user • Av perc viewed ratio = Average perc podcast viewed of activated user vs inactivated user	• CTR (click through rate) = (# of clicks) / (# of Preview Impressions) • Ideally this ratio should be greater than 1 • Benchmark against industry standards. • High Importance due to direct impact implications • Watch Time Ratio and Av perc viewed ratio will be compared between same user personas.
Discoverability	High	• % Users that have at least once previewed a podcast • Average amount of time previewed by a Activated User.	• Activated user means users who have passed through one stage of funnel. • Benchmark against industry standards
Segmentation	High	• What type of Users use this most often – Power, Medium or Passive • What genre of content is previewed the most • User segmentation based on – Age, Gender, Location, Operating System/Device Type	• Benchmark against industry standards • Benchmark against internal standards • Look for signs of feature cannibalisation
Monetisation + Retention	Med	• Average feature churn = % Activated users who stop using Snippets after 90 days. • Average Monetisation Ratio = Monetisation Rate for activated users vs inactivated users	• Monetisation Rate = # of Premium Users / # of Total Users. • This ratio will be compared between same user persona and should be ideally greater than 1. • Benchmark against industry standards

Other Metrics to keep track of:

	Metrics
Health Metrics	• Latency Time of Feature load up. • Latency time increase of App after addition of feature. • Time taken for first load up of the feature
Happiness Metrics	• NPS Score • CSAT score

Possible Pitfalls	Mitigations
Feature is unintuitive for some Users	Introductory prompts for users who accessed the feature first time
Low Adoption Rate among Podcast Creators	Can introduce a incentive bonus to podcast creators who add the Snippet
Increased costs of Content Delivery Network when feature goes live	Insuring feature need to be adopted widely, otherwise need to be killed.

Tech Stack of Proposed Solution:

• React Native -iOS & Android apps
• Python (Django framework) & HTML5JavaScript -server-side

• Computing services -Amazon S3, Amazon, EBS, Amazon EC2
• Database –PostgreSQL, Kafka, Hadoop, Apache Beam
• Bootstrap, Kotlin, Swift

• NGINX
• React, Svelte