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Replay Token (RPLAY) White Paper

Blockchain Based Content Tracking & Payment Platform

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Abstract: Video Distribution is Broken

The concept of the Creator Economy is gaining traction as creators are the life-blood of all major internet platforms, creating video content which drives all the engagement across Youtube, Facebook, Snapchat, TikTok, all social platforms. Not to mention the consumer web and the myriad of OTT services and distribution endpoints Netflix, Hulu, Disney+, Paramount+, Peacock , and thousands of others servicing every entertainment and infotainment niche.

That said, Content owners aren't getting paid fairly for their work. Existing content distribution methods are mired with opaque revenue shares and technology fees for content delivery. While many companies (talent agencies and tech platforms) exist to broker/license creator content, they do a universally bad job of tracking revenue appropriately and mostly rely on manual record keeping. The advertising platforms and distribution platforms which license the content come up with proprietary formulas to distribute revenue shares. Often, only minimum payments are paid and distributed - to be shared among a group of creators and content owners.

What we need is a Content Economy, for an internet that in 2021 is 82% video.

We need an entirely innovative approach that works for Creators and Content Owners; that secures their work and compensates them fairly for their work so that they can continue to invest in creating the content that is entertaining the world.

The solution is a decentralized, transparent video distribution ecosystem based on Blockchain technology. The core framework is Replay, a tracking and payment platform for content owners. One that accurately measures every play and ensures that owners are compensated fairly. One that allows distribution platforms and publishers to access content for their audience and pay for it in a predictable way so that they can optimize their business.

Replay connects content owners, distributors, and consumers and is denominated by content consumption while removing the friction and economic costs associated with existing distribution methods. Replay is an economic system that rewards consumers while entertaining them while providing creators and content owners with liquidity and real-time payments. We view Replay and associated technologies as the future of content distribution across all screens focused on solving the key challenge of accelerating compensation for content owners, creating greater economic opportunities for content creators, and ensuring transparent, reliable and ubiquitous access to content for distributors and consumers around the world.

Replay will now introduce RPLAY (Replay Token), a token for a decentralized content distribution ecosystem and Replay Now,

a cross-platform OTT streaming service which adopts the core Replay technology and rewards consumers with tokens for subscribing & watching content.

Value Proposition

The Replay system and (RPLAY) is a token of exchange in a secure, trustless, content distribution ecosystem. Replay provides:

- **Content Owners:**
Transparency and visibility into content performance, secure real-time payments, liquidity.
- **Distribution Platforms:**
Access to a wide range of content for distribution and monetization via a predictable model that allows them to optimize their business.
- **Consumers:**
With access to limitless free content including both Premium and User Generated and allows for them to participate in the success of the streaming ecosystem.
- **Fans/Investors:**
The ability to participate in the success of a given piece of content or the success of the content ecosystem at large.

Introduction

Simplicity, Consistency, and Trust

While platforms like TikTok, Facebook, and Twitch are making significant efforts to court creators and content owners, there is one company that stands far ahead of the pack. A far and away leader, YouTube. YouTube has become the de-facto storage and content management platform for creators and most content owners. Countless hours of content are uploaded daily hoping to be monetized; But why? Trust, Consistency, and Simplicity. Let's look at those.

Simplicity:

YouTube made it dead simple for anyone to upload content. Sign up for a self-service account, upload a video, agree to be monetized and you're off to the races. When you add free storage into the mix it was a no-brainer.

Consistency:

YouTube pays. Reliably, every 30 days. In fact, in the last three years alone they have paid over \$30 Billion dollars out to

Trust:

Near Real Time reporting. By providing access to a real time reporting dashboard creators could see how their videos were performing in real time and over time could optimize their business to create more success.

Even-still, over the years there has been an active and on-going debate over what a given creator's actual revenue share percentage is. On top of that YouTube typically controls the prices at which a channel must sell its advertising inventory if working with direct advertisers and sometimes disallows the practice altogether.

Further, given their leverage and scale (along with being a subsidiary to Alphabet/Google) they have started to embark on a campaign of de-platforming and demonetization. A creator's entire body of work could be lost in an instant if they rub against the Terms of Service.

This effort paves the way for new and emerging video platforms to establish market presence; not only on the social side with the emergence of TikTok, Twitch, and Snapchat, but on the big screen at home with Direct-to-Consumer streaming apps like Netflix, Hulu, Paramount + and thousands of others catering to every content mega-niche and vertical.

These platforms emerge with a variety of new business models to serve consumers. The model for the vast majority of content owners and platforms is largely the same - revenue share. While a Netflix deal may seem very exciting - in most cases we're talking about a modest payment paid over years. In the case of the most popular series of all time, Squid Games, Netflix paid \$21,400,000; the series has already reportedly generated nearly \$1 Billion in value for the streaming service, while the content creators will earn more for season 2. Their earnings for the global sensations season 1 are capped.

With emerging Over the Top (OTT) platforms like Roku, Vizio Smart TVs, Tubi TV and Pluto TV content owners and creators typically strike revenue share after "fees" which are largely opaque - reporting to content owners, if any, coming over email after 90+ days, and payment as long as 90 days after that. Most creative projects fail to return a profit. And with long payment cycles the creators barely scrape by.

But Trust and Transparency are not the same thing, and simplicity is hard to achieve.

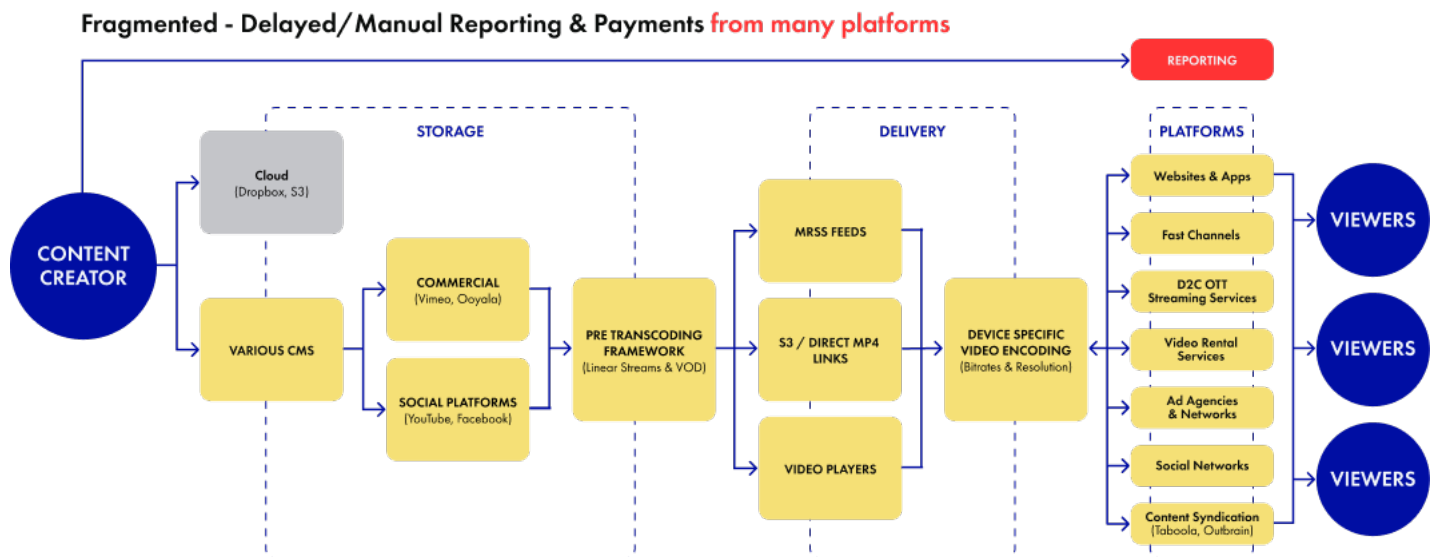
YouTube and all the rest are closed ecosystems run by traditional corporate giants. The world and especially the future provided to us by Web 3 is open and decentralized and will inevitably disrupt the status quo. We will now walk through the challenges with content distribution today and how with a decentralized system we can achieve simplicity, consistency, and trust at scale.

Challenges with content delivery today

I. Overview

In order to best monetize creators must get their content in front of the greatest audience possible and delivering to various platforms means dealing with a variety of vendors, formats, specifications, business models, and reporting platforms (or lack there-of).

In the race for market share, they all make it very hard. Here's a look at how the process of delivering content to a given platform works today:



II. Steps Involved in Delivering Content From a Creator to a Consumer

1. Content Owners typically upload their library of content into some kind of storage. Here are the various types that are available:
 - a. **Cloud based** - Google/Dropbox drives or Infra companies like Google Cloud and Amazon S3;
 - b. **CMS platforms** / OVP like Brightcove, JWPlatform, Vimeo;
 - c. **OTT platforms** like Powr.tv, Zype;

2. Before it's ready for digital distribution, there are complex processes that need to be implemented:
 - a. **Pre-transcode to several bitrate profiles** (1080p, 720p, 540p, etc..) depending on whether it's desktop, mobile or CTV environments;
 - b. This includes several costs around storage of additional files & transcoding fees;
 - c. **Effectively HLS streams** are built out for optimized streaming experiences to end points;

3. There are several mechanisms for delivery:
 - a. **MRSS/JSON feeds** - those that have content housed on a CMS or OTT platforms - there is an ability to generate XML/JSON based feeds to various endpoints. This contains all the metadata of each asset type along with information about origins of streaming the content itself;
 - b. **S3/direct links** - some content partners aren't savvy enough to use a middle-platform and provide direct s3 links to mp4 files for delivery (not always optimal);
 - c. **Embedded video players** containing content are delivered to websites - these are restrictive and has a barrier to entry to acquiring new endpoints/distributors;

4. There are several platforms where the content can be streamed on today:
 - a. **Websites & Apps** - websites & mobile apps can utilize content to feature on their website (typically entertainment, news, gaming content is popular). Typically a rev-share based model.
 - b. **FAST channels** - Free Ad Supported channels are another awesome distribution pipe. These channels showcase content from several content partners and distribute on multiple endpoints as Linear "Live" channels. Typically a rev-share based model, sometimes with an MG (monthly guarantee).
 - c. **D2C OTT Streaming Apps** - Several popular streaming platforms acquire content frequently to feature on their destination. Typically a rev-share based model, sometimes with an MG (monthly guarantee).
 - d. **Video Rental Services** - Several TVOD services license premium movies, tv-shows this way and work with content owners on a rev-share or a minimum revenue per rental model.
 - e. **Ad Agencies & Networks** - Ad companies typically license short-clips of content to market their campaigns alongside the video to provide an enhanced user experience and a monetization strategy for publishers. to monetize. Typically a rev-share based model.
 - f. **Social Networks** - Content creators typically push their content directly on Facebook, Youtube, Instagram etc... to monetize. Typically a rev-share based model.
 - g. **Content Syndication marketplaces (Taboola, Outbrain)** - similar to ad networks, companies license short-clips of content to syndicate alongside other commercials in an effective monetization strategy for publishers. Typically a rev-share based model.

III. Key Problems with today's approach to content delivery

1. **Partner Selection / Pitching** - While the social platforms allow self-uploading of content, most of the rest of the content distribution ecosystem operates on traditional deal making, review of powerpoints, and multiple layers of back and forth involving many middlemen and agents. Deal terms vary vastly by distribution endpoint as does delivery. Content owners are forced to scour the web for information on key decision makers and pitch themselves that way.

2. **Specifications** - Given the vastness of the ecosystem and rapidly emerging nature of the space, the complexities associated with delivering content to a variety of both hardware and software platforms creates a lack of standard around delivery specifications. This creates a significant barrier, particularly as certain platforms and manufacturers sign preferred vendor

deals which limit the vendors that can easily deliver content to them. This necessitates that content providers must work with multiple vendors for content delivery.

3. **Revenue Share** - While this may seem the easiest and fastest path to a distribution deal there are a couple of key problems. For one, revenue shares are often not transparent percentages and vary greatly by platform. Typically, revenue shares are paid after a variety of other fees are paid and often on proprietary formulas set by individual distributors. As a content provider, you have very little visibility into the fees and fine print as well as the actual usage of your content.
4. **Vendor Selection** - Further to the previous point. As preferred vendors emerge they leverage their power to enact unfair and unsustainable pricing models.
5. **Reporting** - Given the nature of the business and the variety of business models with which content owners get paid (Upfront Guarantee, Revenue Share, Transactional Share) AND the fact that once distributors get access they mostly support all of those models across dozens of delivery endpoints there is no unified reporting platform. Content owners are typically delivered spreadsheets which are calculated by various endpoints months or quarters after delivery.
6. **Payment** - Further to the above point on delayed reporting. Payment is often made months, quarters, or even years after content was actually enjoyed. This gives the distribution platforms the ultimate leverage over content creators and does not allow the creators to reinvest in themselves and their business.

Challenges with content delivery today

I. Highly fragmented

While there are only a handful of major content studios and few dozen mid-tier studios, there are hundreds of film production companies and thousands of film distributors around the globe, when you add 50 million creators to the mix, there is simply no good way for content distribution platforms to communicate with one another and transact simply while managing demand, rights, and platform evangelism around the world.

A number of specialists have emerged to focus on licensing specific content libraries but they have only just begun to scratch the surface. These companies include Jukin Media (Acquired by Trusted Media Brands) and Video Elephant.



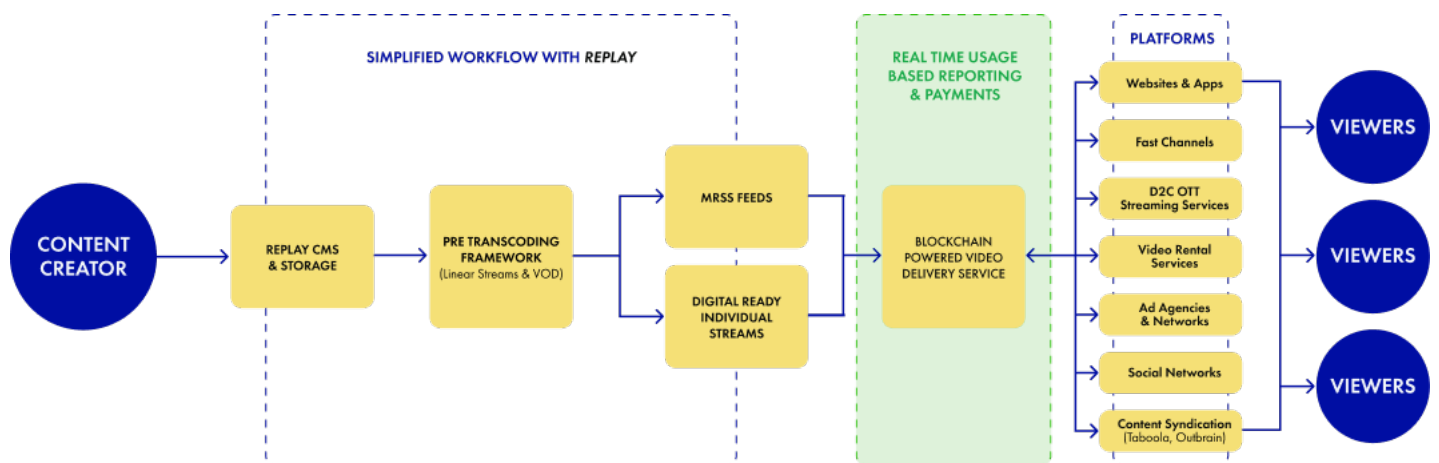
II. Silly barriers to entry

Most Content today is licensed in a few different ways; typically via agents and agencies. And a bit happens through web 2.0 enabled marketplaces like Jukin Media or Video Elephant.

The Replay Solution - Payment & Tracking On The Blockchain

REPLAY reimagines the way video content distribution is done by innovating on the process of tracking content consumption and incorporating advanced blockchain technologies into a next generation content payment protocol that facilitates real-time payments and enables sustainable economic growth.

Content Distribution With Replay



At a high level - content creators upload assets into Replay and convert their streams into digital ready blockchain-enabled playback streams. These streams are trackable on the decentralized ledger and real-time payments using RPLAY tokens are enabled between various platforms/distribution channels and creators on a consumption basis.

How It Works

- 1. Videos uploaded onto the platform automatically creates unique digital-ready streams** that are trackable on the blockchain and makes them available for syndication in a video consumption based model;
- 2. Enable Creators to set usage based pricing** for their content;
- 3. Allow Creators to mint NFTs** to allow anyone (fans & Investors) to share in the success of their syndicated videos & it's perpetual revenue;

4. Content Distribution

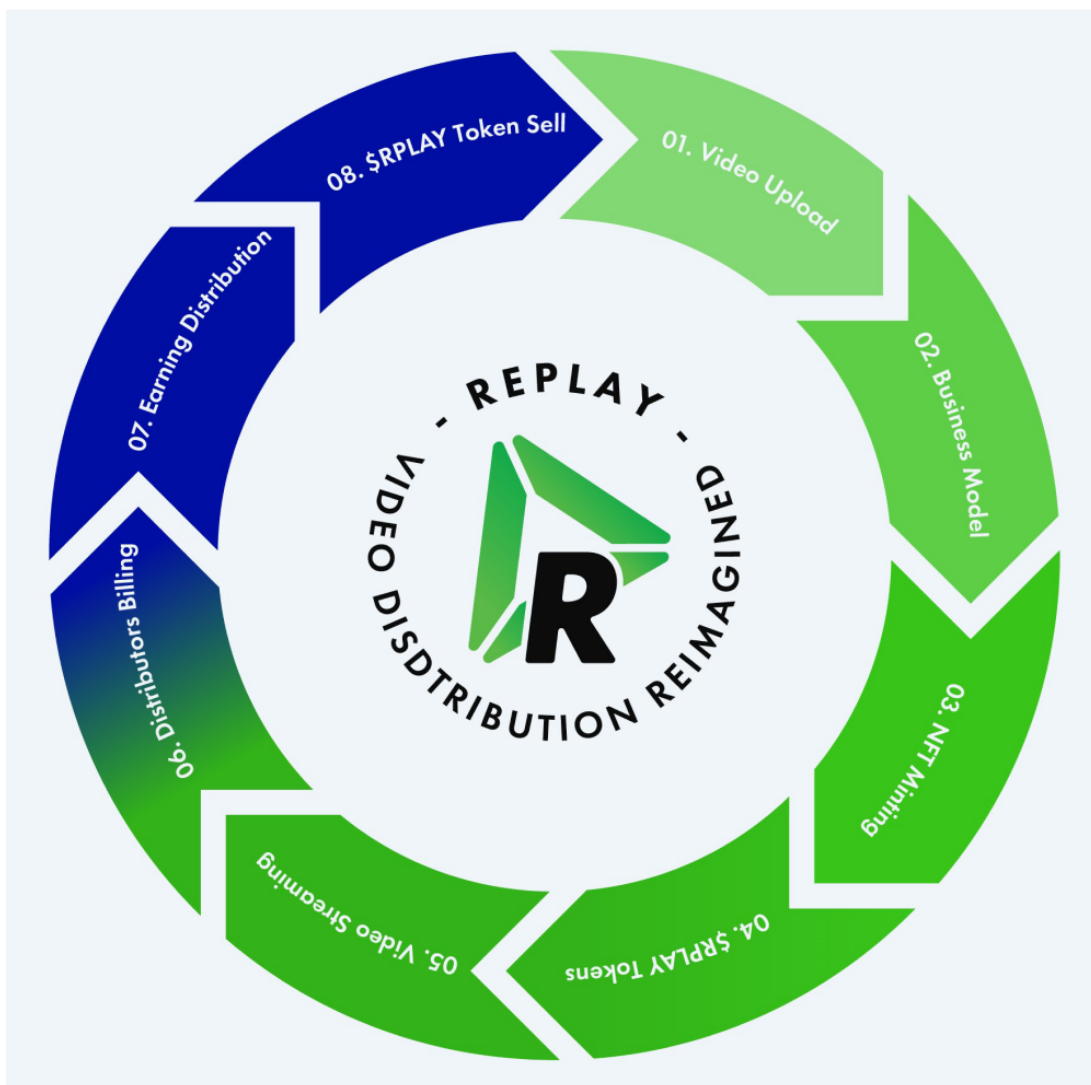
- a. Blockchain enabled embeddable stream links ready for distribution with proprietary tracking controls:
 - i. HLS or MP4 streams;
 - ii. Customized video player;

5. Allow distributors/ anyone to license content using RPLAY Tokens based on consumption pricing to license content;

6. Allow distributors to publish these streams anywhere seamlessly;

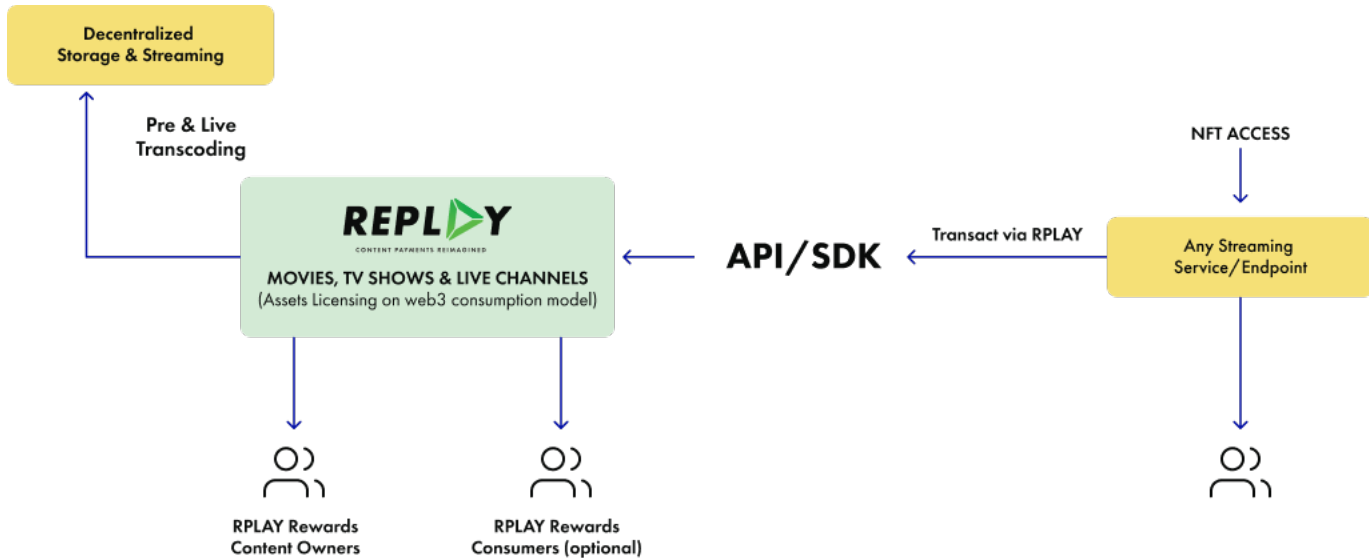
- a. POC distributor is Replay’s very own video streaming service – Replay Now (to be avail across all platforms)

7. Provide creators a way to capture real-time revenue against any of their content usage. Content Partners (and the co-owners of the NFT asset) are instantly paid in RPLAY tokens as video is syndicated across the platform.



Replay Payment SDK

After a beta period with Replay Now, Replay plans to introduce the Replay Payment SDK so that any consumer facing endpoint wishing to introduce usage based content consumption can easily integrate with the Replay Payment Protocol.



Replay's Key Benefits Revisited

Trust/Tracking - 100% Transparent – all transactions powered by smart contracts on decentralized, distributed ledger.

Speed - Instant Payments to creators and real-time reporting into video activity.

Control - Content owner sets usage pricing terms.

New revenue opportunities for **all parties**:

- Creators find lost revenue in existing channels with the additional tracking;
- Enable much more distribution channels contributing to much more revenue;
- Anyone can participate in the success of a video asset by sharing ownership in an NFT and create additional liquidity for creators;
- Distributors can expand their offering to consumers with predictable revenue;

Tokens for Content Distribution

1. Content Owners Earn

- a. As content is consumed anywhere within the Replay platform, the content tracked and distributed by Replay banks tokens based on consumption metrics. Reference Tokenomics Below;

2. Distribution Channels/Platforms Pay

- a. Content Distribution Platforms Interested in Promoting / Showing the content are able to license that content for syndication via the Replay platform. Reference Tokenomics Below;

Tokens for Consumers

1. Over the Top streaming services can adopt Replay's core tracking & payment infrastructure and may choose to reward consumers for consuming content. Reference Replay Now Below.

NFTs

I. Intro to NFTs

- NFTs (Non Fungible Tokens) are unique and non-interchangeable units of data stored on a digital ledger. NFTs can be used to represent easily-reproducible items such as photos, videos, audio, and other types of digital files as unique items, and use blockchain technology to establish a verified and public proof of ownership.

Source: Wikipedia

- S-NFTs (Security NFTs) combine NFT technology with an innovative investing framework. The S-NFT makes it possible for fans to invest capital toward a new song or album and in return, get ownership in the royalty rights.

Source: Republic

II. Replay NFTs

- Early adopters. Limited NFTs.
- Lifetime Ad-Free access to Replay Now;
- Lifetime access to Paid content on Replay Now;
- Bonus RPLAY Rewards on content playback;
- Voting on favorite Movies & TV Shows to feature;

III. Replay r-NFTs

- a. Replay r-NFTs allow RPLAY Holders to own a percentage of the RPLAY Royalty stream associated with any individual or group of videos being distributed through the Replay ecosystem.
- b. r-NFTs are only made available against certain videos based on the Content Providers' interest.
- c. RPLAY proceeds from r-NFT sales are passed entirely along to Content Providers with both Replay and Content Providers taking a small fee for facilitating future r-NFT transactions around each piece or bundle of content.

Roadmap

Phase 1 - Q1 2022

- **Private Sale - RPLAY token (Strategic Partners only)**
- **Development of core Replay payments & tracking protocol**
 - The community-driven, blockchain platform which enables core tracking & payments framework to enable automated licensing of content between distributors & content owners with support for VOD/Live streams. Distributors can buy into the ecosystem and pay creators to publish these streams in their sites and apps. Content Providers are instantly paid in RPLAY tokens as the content is consumed across the ecosystem.
- **Replay Now**
 - Replay Now, an over-the-top streaming service, serves as a pilot distributor for the Replay Ecosystem and is a blockchain enabled streaming service available on Smart TVs, Mobile and Web devices. It showcases live, linear, and VOD content and It licenses content exclusively from Replay and shares all profits with its consumers by rewarding viewers with RPLAY as they watch. Consumers are then able to liquidate their tokens or use them to invest in content in the Replay ecosystem. Reference Tokenomics Below.

Phase 2 - Q2 2022

- **TGE Listing - RPLAY token**
- **NFT Drops**

Phase 3 - Q3 2022

- **Replay Royalty - rNFTs**

- Content owners can mint NFTs for each of their video assets enabling fans & investors to share in the success of their assets. NFT holders would earn a % portion of the RPLAY token rewards as the video gets distributed on the platform.

Phase 4 - Q4 '22/Q1 '23

- **Replay SDK**

- After a beta period on Replay Now, Replay will introduce the Replay SDK so that anyone can incorporate Replay content tracking and usage-based payments into their application.

GoToMarket

- **Launch Replay. Now**

- Ad Supported Linear/VOD Service;
 - a. NFT Based Access to Turn Off Ads;
 - i. Website/Mobile Site;
 - ii. Mobile Apps (iOS and Android);
 - iii. CTV Apps (Roku and FireTV);
 - iv. SmartTV (Vizio, LG, Samsung);
 - b. Usage Based Payments (Pay-as-you-Go);

- **Bottoms Up Approach**

- Partner with Creators, MCNs, and Independent Content Owners;

- **Top Down Approach**

- Partner with Studios and Content Owners;
- Strategic Partnership with Leading Content Syndication partners (Content Syndication);
- Strategic Partnership with Theta Labs (P2P Decentralized Video Streaming and core Blockchain framework)
- Strategic Partnership with POWR.tv (now BitCentral);

Replay Now Phases

- **Phase 1 - Free TV With Ads**

- Replay Now will program both VOD and Linear Content across all market leading endpoints including Web, Mobile, and Smart TV Ecosystems. Viewers will earn RPLAY for watching content, essentially participating in Replay Now's revenue.
- A Limited Number of NFTs will be released that will allow holders to access all the content, advertisement free, for life.

- **Phase 2 – NFTS**

- **Phase 3 - Usage Based Payments**

- Replay Now will introduce a first-of-its-kind usage based payment model. Consumers will have the opportunity to purchase RPLAY tokens and stream ad-free content on a pay-as-you-go basis. If a viewer's RPLAY is depleted, they can replenish that account or the account would default back to ad-supported (they would begin to see ads).

Business Overview

Founders

The founders have spent the last 15 years working together across emerging media distribution and monetization conceptualizing, launching, and scaling end-to-end solutions for content owners and distributors. Responsible for launching over 25+ Premium/Niche OTT Streaming Services for dozens of content catalog owners reaching over 20MM+ users monthly today.

Krish Arvapally

CEO

Serial Entrepreneur – first startup at 16; co-founded and held CTO & CPO roles at Mojiva and MoceanMobile – pioneered mobile first digital ads platform doing over 10000+ QPS - acq. Pubmatic (PUBM – NASDAQ); then co-founded/CTO @ Unreel – an OTT video streaming platform/stack for content owners - built core video infrastructure and live streaming systems – acq by Powr.tv, then most recently Nscreen.TV – a unique ContentPod video ad unit for CTV advertising.

Maduri Arvapally

Lead Blockchain Engineer

Chief Engineer @ Building20 building innovative live streaming and video applications. Lead engineer @ NscreenTV building audio & video stitching technologies for high-throughput ad-tech systems. Senior Go-Lang backend engineer @ GoPro leading all development of GoPro Plus highly scalable, fault tolerant subscription/payments platform. Holds 4 patents building a video indexing platform that leverages social data. Passionate blockchain & dApps developer.

Dan Goikhman

Chief Strategy/BD

Serial entrepreneur in emerging media monetization and distribution. Past companies include- Mojiva (acq. Pubmatic/PUBM), Dandelion (acq. Metric Collectic), Unreel (acq. powr.tv), uncubed (acq. recruiter.com). Presently board director/evangelist at powr.tv the platform behind some of the biggest names in streaming including Pro Sieben's S71, Blaze Media, Broadway on Demand, and dozens of others. Experienced at taking products from the back of a napkin through to revenue and scale.

Advisors

In addition to the Core Team, Replay has assembled a group of industry leaders, entrepreneurs, investors, and early adopters as advisors including:

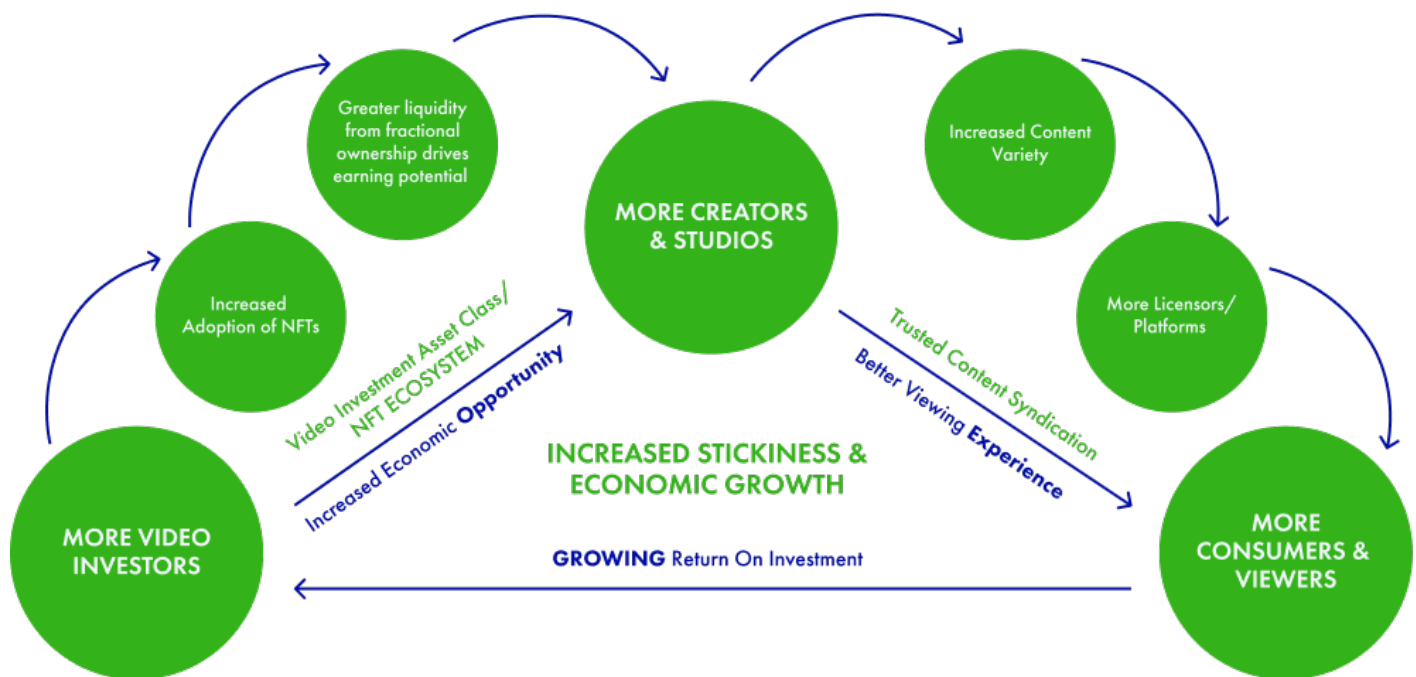
- **Gianni D'Alerta**, Blockchain and NFT Consultant, Ethereum Founding Team Member;
- **Kedric Van DeCarr**, Founder Unlockable, DeFi Masterclass;
- **Anand Iyer**, ex-CEO of Trusted, Founder Defi Masterclass, Managing General Partner @ Working Title Fund

- **Mitch Liu**, Co-Founder, Tapjoy, Co-founder, CEO Theta Labs Inc
- **Arthur Linuma**, Co-Founder, IXXB. Principal @ Linuma. Blockchain Investor & Advisor

Replay Overview and Advantages

Replay Flywheel

Every New Creator, Every Video, Every Play Creates Value For All Parties



Token Launch / Tokenomics

Reference Tokenomics on website <https://imaginereplay.com/tokenomics/>

Companies/Funding Data

[https://influencermarketinghub.com/ebooks/Creator Economy - Creator%20Earnings Benchmark 2021.pdf](https://influencermarketinghub.com/ebooks/Creator_Economy_-_Creator%20Earnings_Benchmark_2021.pdf)

<https://www.jukinmedia.com/lp-assets/pdf/v2/JukinMarketplaceTOS3.30.21.pdf>

Market Research

https://www.cbinsights.com/research/creator-economy-market-map/?utm_source=CB+Insights+Newsletter&utm_campaign=bb4b416a56-newsletter_general_Sat_20210612&utm_medium=email&utm_term=0_9dc0513989-bb4b416a56-95181078

<https://www.linkedin.com/pulse/creator-economy-pioneer-twitch-turns-10-plus-istacon-jim-louderback/?trackingId=pij5%2Bul6RwamZQQC1DDoLg%3D%3D>

<https://www.wired.com/story/twitch-turns-10-creator-economy/>

<https://neoreach.com/creator-earnings/#:~:text=Not%20only%20are%20companies%20like,Economy%20is%20not%20slowing%20down>

<https://influencermarketinghub.com/creator-economy-stats/>

<https://www.theverge.com/2020/2/4/21121370/youtube-advertising-revenue-creators-demonetization-earnings-google>

Competitors

Videocoin

LBRY/Odyssey

CinemaCash

D2

Veracity

<https://docsend.com/view/du4ux26qnx43pwn>