

Topics - Summary

- An examination of the current market and landscape for NFT
- A deep dive on the opportunity for NFTs, including an exploration of the world of the possible: Where we are, where we've been, and where we are going.
- An exploration of the many use cases and utility for NFTs for artists and creators, brands and IP owners, and many others.
- A brief summary of L2s and sidechains
- Overall, this presentation will highlight the many bridges that NFTs provide to bring every day consumers into the blockchain world.

The transformational power of NFTs



Recapturing the power of ownership and being there for the next generation of fans.

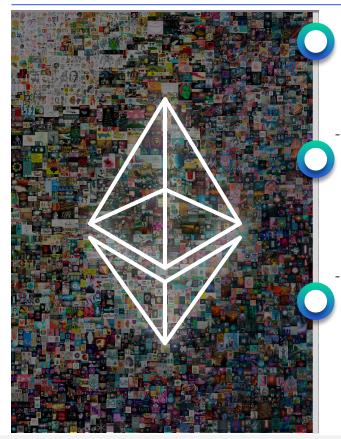








We are rebuilding the real world in a digital format



Over decades, and probably centuries, **people have collected physical things that they value**, which represent **a piece of their identity**: Art, sports cards, music, brand collectibles

NFTs have brought about a new medium that **bridges**many gaps between traditional and new worlds:
Physical & digital, mainstream and crypto, because
everyone can resonate to collectibles in the niche they
care about

NFTs are flexible and creative. They can create a perennial connection between a collector and a creator, and they can foster a new community. They can enable a new way to purchase, distribute, showcase and collect things that are important to us

A Green New World

The NFT industry is also empowering green futures with Layer 2 technologies that are environmentally and fiscally sustainable, with near 0% carbon footprint and inexpensive transactions



NFTs are driving a new paradigm for ownership

Major investors are still bullish...



This is like the early internet days all over again. I think [NFTs and blockchain tech]

- Mark Cuban

Brands, Artists and Celebrities continue creating...

are going to be huge.



Grimes



Steve Aoki



Kings of Leon



Ron Gronkowski



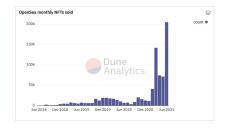
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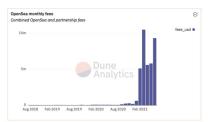
...And many more by the day

...and users and collectors are still buying

Even though average prices have fallen, marketplaces are still profiting

OpenSea monthly fees and monthly volume





Notable sales and stats

Beeple: \$69m at Christie's auction

Cryptopunks: \$30m in trading

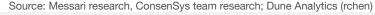
to date

Logan Paul: \$5m in NFT sales

Nyan Cat gif: \$590k

Volumes for NFT art value: ~\$100M per month

OpenSea: Over \$100m in sales YTD, 55,000 active users





There is a world of opportunity

Being unique, rare and indivisible, a non-fungible token (NFT) can represent



Crypto Collectibles

The CryptoPunks are 10,000 uniquely generated characters. No two are exactly alike, and each one of them can be officially owned by a single person on the Ethereum blockchain. It has generated \$389 million in sales, top-ranked all NFT projects so far.



NBA Top Shots - Even A Moment

Each moment – a short video from multiple angles – on **NBA Top Shot** is a NFT. The site had more than 350,000 active users and and up to \$37 million in sales over a 24-hour period. Currently, NBA Top Shots has garnered over \$630M in sales.



Digital Artwork - Beeple's \$69M Christie's Auction

The digital artist **Beeple** sold \$3.5 million worth of art through NFT marketplace Nifty Gateway last year, and has auctioned \$69M at Christy's. **Grimes** sold \$6 million worth of digital art as NFTs including images and short videos set to music.



NFTs in gaming

Axie Infinityis a blockchain game that allows users to earn income through NFTs and cryptocurrencies. Players breed, battle and trade NFTs called Axies. Throughout the pandemic, people in the Philippines were able to earn a livable income with this game.



Rights and Royalties

EulerBeats is an NFT platform that allows users to create and own an eternal EulerBeats Original with the seed and the art + music generation script on the Ethereum blockchain.



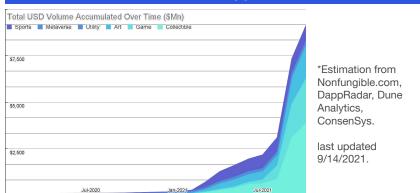
Novel ways to engage customers - Bridging the gap between digital and physical

Nike now owns a patent for "Cryptokicks". When you buy a pair of the "CryptoKicks," you'll also receive a digital asset attached to a unique identifier of that shoe. As a result, there is digital scarcity of the digital assets.

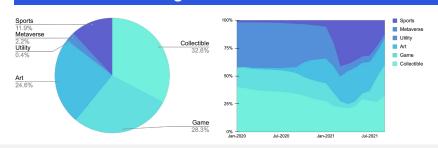


NFTs are now a 10 billion \$USD market

All time volume has approached 10\$bn

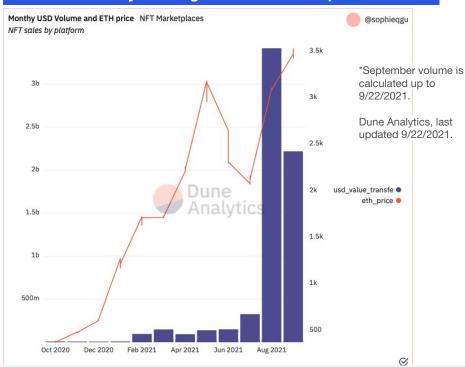


Market segments and distribution



The NFT market is about 32% Collectibles (dominated by CryptoPunks), 25% Art (lead by Art Blocks), and 28% Game (lead by Axie Infinity).

Monthly Trading Volume vs. ETH price



NFT Monthly sales volume surpassed **\$3.5b** in August, in an unwavering momentum albeit the crypto price swing.

Collectibles, art, sports and gaming are the 4 main segments

The NFT market is about evenly distributed between Collectibles (dominated by CryptoPunks), Art (lead by Rarible), Sports ((lead by NBA TopShot), and Game (lead by Axie Infinity)



^{*}Data does not include Nifty Gateway. Source: nonfungible.com, DappRadar, ConsenSys. Last Updated 07/27/2021.

COLLECTION		▼ VOLUME	▼ TRADERS	▼ SALES
1	Axie Infinity	\$602.57M 471.26%	204,190 255.90%	1,231,438 223.49%
2	CryptoPunks	\$51.25M 213.99%	683 112.11%	786 143.349
3 6	Bored Ape Yacht Club	\$34.16M -24.00%	2,359 -33.17%	2,78 -60.50%
4	Art Blocks	\$31.87M 332.13%	4,898 158.74%	14,91 225.929
5	NBA Top Shot ⊘ FLOW	\$19M -51.81%	122,027 -27.46%	883,03 -37.96%
6	Cool Cats	\$13.43M	4,505	22,53
7	Meebits • ETH	\$12.73M 267.02%	1,172 95.66%	1,59 96.30%
8	Rarible • ETH	\$10.8M -0.37%	8,866 -10.48%	12,570 -22.909
9 85670	Sorare • ETH	\$10.1M -14.31%	9,022 0.56%	50,48 -1.09%
10 Webse	VeeFriends # ETH	\$6.87M -41.52%	432 -32.39%	469 -47.00%
11 5	The Sandbox	\$5.93M 23.09%	2,219 24.66%	4,24 24.28
12	Sup Ducks	\$5.82M	2,477	14,83
13 🥻	PUNKS Comic	\$3.62M -85.08%	1,454 -6.07%	1,93 -67.619
14	Foundation • ETH	\$2.88M -27.09%	2,044 -11.21%	2,07 -8.349
15	Aavegotchi	\$1.97M 62.51%	1,536 40.02%	7,044 76.239

Top NFT collections show incredible growth.

*DappRadar Top Collections 30D Volume, last updated 7/27/2021.



There are good ways to execute and bad ways to execute

NFTs should NOT be seen as one-off digital tokens or a means for a celebrity to garner revenue from their fans NFTs are a new format of collectible for engaging, immersive experiences that enable meaningful and lasting connections between brands and customers

Digital collectibles can generate perennial value for holders

With NFTs, value and content are one and the same collectibles owners can be updated with new content – even after the initial purchase – and new content can live behind unlockable gates

NFTs empower never-ending stories. NFTs are generative art that parallels real world experiences for collectors that can change, depending on how fans engage with it

Case example: A poorly executed NFT drop can come across as a drop in the pan or revenue grab...



A cosmetics company created
NFTs from 3 of its best selling
products to delight their community
in new and disruptive ways



By pricing the NFTs at the same level as their retail counterparts, the brand planned to accentuate its image as being accessible and inclusive while appealing to the next-generation beauty buyers

However, opportunities missed include

- Not providing utility or purpose
- Not attaching the NFTs to a feeling of exclusivity, physical products or experiences
- Not creating an experience that is "unique" or meaningful for consumers

Case Example: A successful NFT launch should amplify the human experience and the connection between the holder and creator



Stella Artois partnered with the James Beard Foundation to auction off NFT created out of Marcus Samuelsson's famous Fried Yardbird chicken recipe for restaurant relief.



Partners: Stella Artois, James Beard Foundation, Christie's **NFT Minted** on Rarible; **Drop method:** Auction

Purpose: Package included an art piece, the digital recipe, a video of Samuelsson revealing his recipe, plus a private dinner for two prepared by him. All proceeds were donated to restaurant relief

Values and meaning behind "the drop"



- Charitable endeavor supports an industry weathering difficult times
- Attached to a useful and unique product
- Creates a unique experience for the purchaser; Inspires and kindles new passion
- · Shares a great human asset



Incentives to participate

- To champion the values it represents
- To learn and own a technique
- · To pass it on

ConsenSys partnered with Palm and Heni to launch a unique experiment in digital art and currency



Palm/ConsenSys launched Damien Hirst's first NFT distribution

- 10,000 original works of art on paper, 5 years in the making, "The Currency"
- An experiment in art as currency, which forces the user to choose between digital and physical world
- Built on Palm blockchain network, environmentally and fiscally sustainable, with a near 0% carbon footprint with inexpensive transactions
- Provides a long-term engagement plan (engaging the user 1 year later to issue their "choice" between digital and physical)
- Immediate ability to sell on secondary market, providing holders with immediate accrued value

There is a significant movement toward utility and a virtuous cycle of engagement



Attract & excite fans through new incentives - exclusivity, membership, access, and product experiences

IMMERSE

Immerse customers in a community of people with similar interests

ENGAGE

Grow the community through engaging fans with benefits to their habits that reward loyalty and participation

GROW

Grow your customer / fan base by evangelizing people who've enjoyed and shared these new, richer experiences.

Fan engagement example journey

Attract & Excite 1st edition

- Launch a 1st edition VIP
 Sports NFT including
 unlockable rewards and
 a chance to win one of
 10 "golden ticket"
 opportunities to meet
 with the athletes
- 50% of proceeds from the purchase goes to a charity of the athlete's choice.
- Holding the NFT will get them future rewards, including admission to future games

Immerse "Community"

- Create a meaningful moment for fans through the release of a 10,000 collectible athlete avatars, each with unique traits
- Ownership of the avatar will lead to multiple fan community opportunities

Engage Evangelizing fans

- Evangelize fans by encouraging them to engage with social media hashtags and change their profile pics to their avatar
- Current Avatar holders who engage with social media campaigns receive new NFT drops and surprising incentives, including direct emails from the athletes

Grow Galvanize

 Current NFT holders who "recruit" new members to the fan community via social media campaigns receive new NFT drops, along with the new members they recruit

NFTs are digital assets with infinite angles of flexibility for use cases

Foundational "lego" blocks that can deepen connections between creators and holders over time





Fan "tunnels"



Generative / Interactive Music & Art



Gaming & Dynamic NFTs



Metaverse



Credentials and Identity



Rights & Royalty distribution



DAOs, Community Building



DeFi and Fractional
Ownership

Fan "tunnels"

Build a "wormhole" tunnel to your fans. NFTs provide a perennial channel for fan connection



 NFTs provide direct access to an athlete or artist. They can enable long-term relationships and a communication line that can be used for communication, incentives, ticketing, and much more

World-of-the-possible

A celebrity releases an NFT to all attendees to her concert. Fans who scan a QR code at the concert receive a "V1" NFT in their wallet, with access to digital collectibles and souvenirs.

As a special treat, the celebrity dedicates a new, never-before heard song to her fans and pledges to share royalties through the NFT she has just granted.

Generative Music and Art

Generative NFTs are programmed to allow individual pieces to take on a life of their own. A song or artwork can be a starting point, which grows into something unique and unpredictable.



- With Generative NFTs, an algorithm mixes together characteristics (or "properties") like background, hairstyle, or accessories to create a randomized combination of visual outputs. In music, this could be different beats or harmonies.
- Because only original works are used, brand safety is assured, while fan engagement is supercharged.

World-of-the-possible

An avatar is minted, and an algorithm mixes together unique properties, for example - accessories, skintones, hairstyles based on the individuals who have minted them.

Each newly minted avatar has some mix of all of the original people who minted the collection, creating a sense of "fraternity" membership and community.

Interactive NFTs

With interactive NFTs, one person can transform the way an entire NFT collection is experienced by holders.



- A Genesis NFT, auctioned at a premium (while the others within the family of Genesis NFT are auctioned at a much lower price or even free), gives one fan the ability to transform every single NFT in a collection of NFTs.
- In addition, royalty distributions can be coded into the "prints" of the Genesis NFT such that a percentage of the sales of the prints are distributed back to the original purchaser.

The World of the Possible A creator builds a custom AR outfit for digital avatars. The Genesis NFT, owned by one fan who pays a premium price, can periodically update the outfit for all NFT holders Royalty distribution can be coded directly into the Genesis NFT smart contract to ensure that the holder of the Genesis NFT gets a percentage of each "print".

Credentials and Identity

With tokenized credentials and identity, you can circumvent having to have a login; log into your web portal through your digital wallet



 Once identity and credential solutions are established and more streamlined, establishing identity and verification of credentials will be seamless and instant. Passwords of Web 2.0 will be a thing of the past.

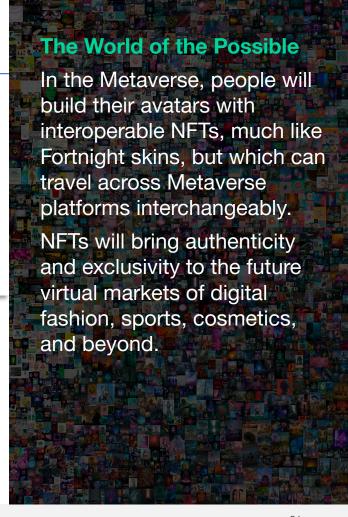
The World of the Possible A doctor can update her medical credentials by scanning her digital Board exam results in her digital wallet, which then can be updated via central systems. She can also obfuscate the actual results via ZK proofs so only systems with permissions to view and validate the scores will have access to the data.

Rebuilding our world in the Metaverse



- A persistent bridge between the physical and digital worlds with unprecedented scale, interactivity and interoperability
- The Metaverse will allow users to generate their own content and distribute it freely throughout a widely accessible digital world
- We do not yet have a "true" Metaverse yet, but when we do, NFTs and applications built on Web 3 will be paramount to interoperability

Source: Newsletter.banklesshq

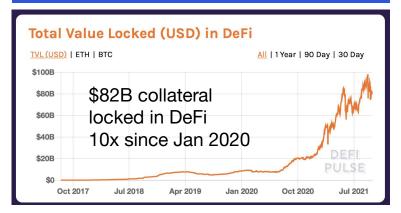


But what about NFTs and DeFi?

The Rapid Rise of DeFi

DeFi Users (2018-2021) Users = unique addresses. Since a user can have multiple addresses the numbers below are overestimates. Source: @richardchen39 3m DeFi users today 30x since Jan 2020 (100k users) Jan 2018 Apr 2018 Jul 2018 Oct 2018 Jan 2019 Apr 2019 Jul 2019 Oct 2019 Jan 2020 Apr 2020 Jul 2020

Collateral Deployed (2020-2021)



Key Projects

(Select Top 15 DeFi Tokens by Market Cap - Source: coinmarketcap - Apr 2021)



1. UniSwap (UNI) - A popular decentralized trading protocol, known for its role in facilitating automated trading of decentralized finance tokens.





8. Dai (DAI) - A stablecoin managed by the Maker Protocol and the MakerDAO decentralized autonomous organization.

MC: \$3.7B



2. Chainlink (LINK) - A decentralized oracle network which aims to connect smart contracts with data from the real world.

MC: \$14.6B



10. Compound (COMP) - A lending protocol allowing users to earn interest by depositing their cryptocurrencies into one of several pools supported by the platform.

MC: \$3.3B



3. Wrapped Bitcoin (WBTC) - A tokenized version of Bitcoin that runs on the Ethereum blockchain.

MC: \$8.4B



13. Synthetix (SNX) - A derivatives liquidity protocol on Ethereum that enables the issuance and trading of synthetic assets.

MC: \$1.9B



6. Aave (AAVE) - A decentralized finance protocol that allows people to lend and borrow crypto.

MC: \$4.9B



14. yearn.finance (YFN) - An aggregator service for DeFi investors. using automation to allow them to maximize profits from vield farming.

MC: \$1.6B



7. Maker (MKR) - The governance token of the MakerDAO and Maker Protocol that allows users to issue and manage the DAI stablecoin.

MC: \$4.1B

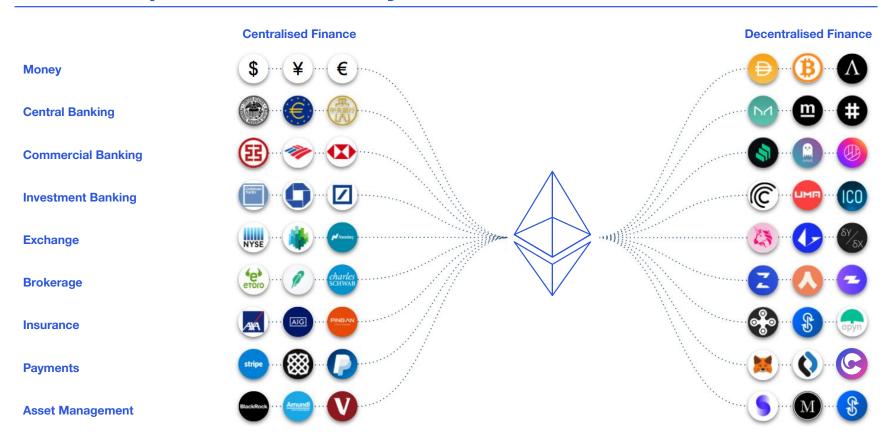


15. SushiSwap (SUSHI) - An automated market maker (AMM), i.e. a decentralized exchange which uses smart contracts to create markets for any given pair of tokens.

MC: \$1.5B



There are protocols for every financial instrument and function



There are substantial opportunities for the intersection of NFTs and DeFi

Financial NFTs include tokenized real-world assets to insurance and bonds, to unique baskets of tokens. Financial NFTs can potentially become the largest single use of NFT technology so far.

Fractionalization





NIFTEX fraction

Multiple platforms are now allowing users to "fractionalize" their NFTs into "shares", which enables multiple users to own a piece of a valuable NFT.

Collateralization / Lending







Multiple platforms are now allowing users to collateralize their NFTs and borrow against them

Insurance Contracts





Yearn.finance insurance contracts underwritten by Nexus Mutual are being sold on Rarible

Liquidity Pools







Uniswap v3 has issued liquidity provision tokens, which are claims on tokens supplied by market makers, as NFTs.

Carbon Credits







Several platforms are launching tradable carbon credits as NFTs, for which investors will be able to finance sustainability projects

Yield Farming



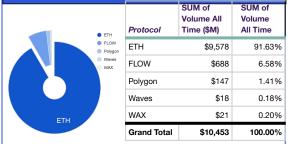


Several DeFi gaming platforms are leveraging NFT gamification with Yield Farming

The world of L2s

Ethereum is by far the most actively used blockchain in the world, and most relevant for NFTs, Decentralized Finance, and beyond

Sales of NFTs on Ethereum have surpassed \$10b, making up 90% of total NFT sales



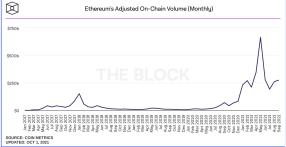
Ethereum has 600k daily active addresses

with a 280% CAGR since 2016

Number of Active Addresses on the Ethereum Network (7DMA)

Source: https://dappradar.com/nft/marketplaces

Ethereum settles \$300b worth of value monthly, far more than every other blockchain. (by contrast, PayPal settles ~\$2.5b per day)



Ethereum L2 scaling solutions have \$4b value locked on-chain, proving Ethereum can scale with L2 technology



Ethereum is institutional-grade financial technology with almost \$100b total value locked in decentralized finance projects



Ethereum has over 300k+ developers, more than any other blockchain developer community globally





SOLIDCE: GLASSNODE

Jul '21

However, current scalability is limited and UX is lacking

Challenges faced by users and developers

- Spiking gas costs price-out market share and impact UX
 - → Best case is loss of low-value transactions and poor UX due to stuck transactions
 - → Worst case is compromising healthy market operation (Black Thursday)
- 2. Block latency is problematic in some applications
 - → Advancing the network state at a faster pace offers major benefits
- 3. Pushing gas costs to users impacts UX
 - → Gas costs create UX friction by adding complexity for the user to figure out

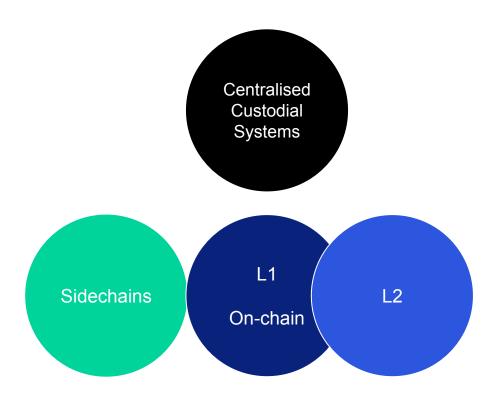
Off-chain scaling is capable of solving these problems by providing higher throughput, faster state advancement and gas cost abstraction

Off-chain solutions are transformative for application UX

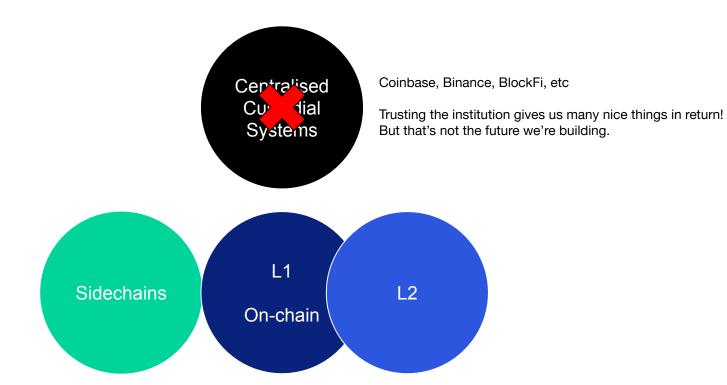
Application UX is about to get a whole lot better with L2s

- 1. State advancement is 10-100x faster (the rate at which data can be updated on-chain)
 - → Reducing UX feedback loop from 12s to <1s</p>
 - → High frequency transactions possible (e.g. high-fidelity price oracles, rapid orderbook management)
- 2. Transactions are a fraction of the cost
 - → Low or no-value transactions viable
- 3. Support for native gas cost abstraction, meta-transactions, account abstraction
 - → Subsidised gas, or gas cost is paid in relevant tokens
 - → Better native support for smart contract wallets and features like social recovery

The spectrum of off-chain solutions



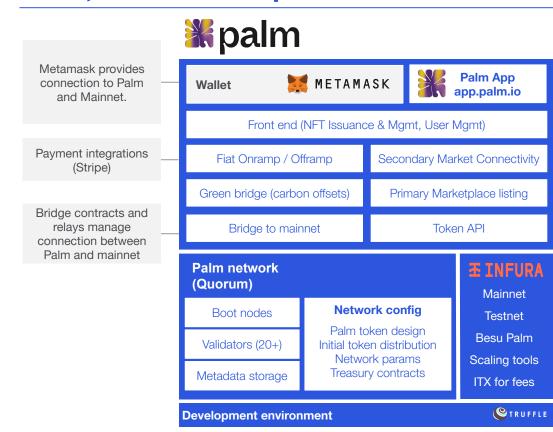
The spectrum of off-chain solutions



Here are a few examples of L2s, EVM-compatible projects, and L1s in the NFT ecosystem

EVM-Compatible projects / Example Ethereum-scaling L2s L1 **Sidechains** 😋 polygon **Optimism** Polkadot. SKALE **AVALANCHE** MARBITRUM. O celo **SOLANA** Matter Labs *****palm \triangle AURORA/ \mathbf{M} NEAR **STARK** WARE () immutable X

An example of our Programmatic Enablement partnerships: Palm, an EVM-compatible sidechain



Highlighting the Palm / ConsenSys partnership:

- Palm network is a Quorum sidechain
- ConsenSys Devs launched the \$Palm token, network and bridge
- ConsenSys Devs started building their source code management and CI/CD with Truffle
- Devs built off of Core APIs within Codefi as a base scaffold for the custom project
- Codefi Activate was used for voting and governance support
- Access to render the NFTs and their Metadata and ownership is scaled through Infura API endpoints and full nodes
- MetaMask enables user-friendly connectivity to Palm
- **Diligence** performed review of the smart contracts
- Customer Success provides long-term support
- ConsenSys Marketing campaigns have supported the Palm launch

ConsenSys' NFT Solution



ConsenSys can partner throughout an entire NFT journey





Minting







Creation

Listing on marketplace(s)

Sale and processing

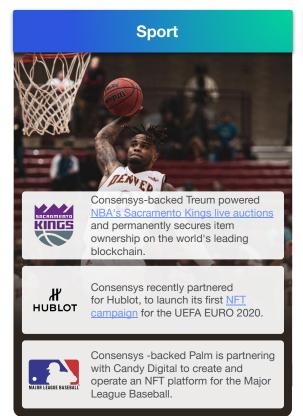
Secondary trading

- Collectible / artwork design
- Experience design / user journeys
- Data Storage for collectible / artwork
- NFT creation on L2 network through NFT minting engine
- Pinned to IPFS+ data storage location of data
- NFT is "dropped" or listed on primary issuance platform, e.g.
 - Custom storefront
 - Other distribution partner
- Creator chooses sale approach, for example - auction or raffle

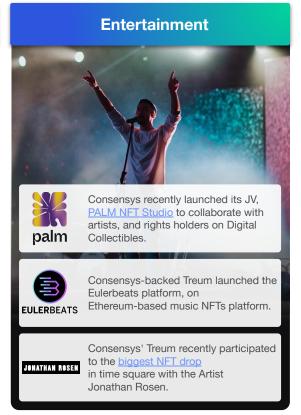
- Purchases are made ! possible through a marketplace or another distribution partner
- NFT is sold via cash. or cryptocurrency
- Cash onramp/offramp provided by services like Stripe/Coinify/ Wvre
- NFT is transferred to purchaser's wallet

- NFT purchaser can sell on the original marketplace to other purchasers
- NFT purchaser can move NFT to Uniswap for trading
- NFT purchaser can move the NFT to other distribution partners for trading (e.g., Nifty's)

ConsenSys' robust track record in digital collectibles







Why partner with ConsenSys: Our market leadership in the Ethereum ecosystem is unrivaled



Monetary Authority of Singapore



















J.P.Morgan













coinbase



TRUFFLE











Development environment for Ethereum with 1.5M downloads

100 +

Companies building solutions with Ethereum audited

150k+

Developers using our managed infra

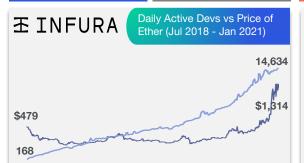
In tokenization projects launches, digital assets and currencies

DLT technology used by **Enterprises**

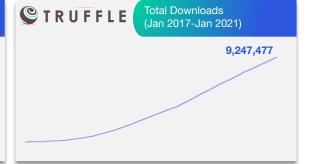


Monthly active

customers









ConsenSys has a proven track record of world class delivery

Enterprise customers



Professional services capabilities



+500

Experts in technology available



3 weeks

From identification & onboard new resources



+12 countries

offices to have proximity with our customers



Certified

Agile scrum, AWS, Azure, CI-CD...

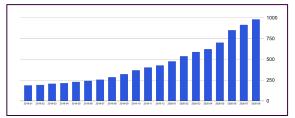
Customer success capabilities



Strong global partners



1,000 clients globally



ConsenSys is the most reliable partner in the blockchain / NFT space

Largest blockchain / NFT company

500+ employees 30+ countries 300+ blockchain projects Enterprise grade product stack



High profile clients



12M+ MAU on

METAMASK
the most adopted

NFT wallet

Strong track record in NFT projects





∦ HUBLOT Luxury



Entertainment







Robust NFT platform

ConsenSys NFT platform (Treum)

since 2016 30+ NFT platforms for clients

strong SLAs and customer support 24/7

security, scalability and uptime KPIs (99.8%) KYC +
Crypto
& Fiat
payments

Ethereum compatible (Mainnet, Palm, Polygon, etc.)

Strong guarantees

Strategic shareholders





J.P.Morgan

Strong financials

\$180M revenues in 2021 **Strong reputation**

Most influential actor of the blockchain revolution





Closing thoughts

- We are rebuilding our physical world in a digital format, and NFTs are emerging at the tip
 of the spear in this movement
- NFTs have brought about a new medium that bridges many gaps between traditional and new worlds: physical & digital, mainstream and crypto, because everyone can resonate to collectibles in the niche they care about
- There are ways to execute NFT launches well, and there are ways to execute poorly.
- L2s are moving toward a much more efficient, cheap, and faster user experience for transacting with NFTs.
- Whoever is able to master the art of connection between NFTs and content, access, and unique experiences, is much more likely to emerge as a winner.

