



BLOCKCHAIN TECHNOLOGY FOR UNTAPPED MARKETS



INTRODUCTION

The purpose of this whitepaper is to provide the reader with a high-level commercial and technical overview of ARTM™ and how we are intending to leverage blockchain technologies such as NFTs (non-fungible tokens) and FTs (fungible tokens) to power a new generation of web applications and content interactions.

DISCLAIMER

As with all investments, in particular those involving cryptocurrencies or blockchain technologies, there are varying degrees of risk associated which may result in financial loss. Every effort will be made to mitigate risk to the highest degree possible in our implementation. Please ensure that you have read this whitepaper in its entirety so that you may understand our implementation methods.

CRYPTOCURRENCY & VALUE

First, some background on the value of cryptocurrencies. “Successful currencies have six key attributes—scarcity, divisibility, utility, transportability, durability, and counterfeitability. The cryptocurrency bitcoin has value because it holds up very well when it comes to these six characteristics, although its **biggest issue is its status as a unit of exchange** as most businesses have yet to accept it as payment.” (3)

What we have observed is that cryptocurrencies which remain a “unit of exchange”, heavily derive value by investor speculation. This is not to say that speculation is bad, what it is to say is that these “exchange-only” currencies in themselves have little to no utility purpose. Their sole utility is their ability to be exchanged.

So, the question is: How do you break into the crypto space and offer something different enough from what is already available? This is where the ARTM™ platform comes in.





ΔRTM PLATFORM

Our primary mission is to build an easy-to-use software platform that can fuel the cryptographic needs of currently untapped markets. We intend to do this by building a robust platform that allows for the leveraging of blockchain technologies, namely Non-Fungible Tokens (NFTs), and Fungible Tokens (FTs), by third-party application and game developers. The ARTM™ platform will provide the necessary tools, infrastructure, and support to unlock amazing new capabilities for new and existing products. We are building the bridge to facilitate the onboarding of traditional and luxury brands with their next storefront; the metaverse.

One of the major issues we've identified with the adoption of blockchain technologies is the extremely steep barrier of entry for most companies. The resources required to bring on experienced blockchain developers, provide any necessary training, properly secure hardware tokens, and build out a full blockchain based project is extensive. The purpose of the ARTM™ platform is to take the guess work out of building new blockchain projects and to help onboard companies wanting to break into these markets, especially NFT development.

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ARTM™ POWERED NFTS

This table represents a high-level overview of some of the specialty NFTs that will be available on the ARTM™ platform:



NFT Type	Description
LUX	High-end, Luxury NFTs: Optionally minted with infused ARTM to provide additional value. Provides the owner with special access to unlockable content and premium ARTM platform features. Highest level NFT produced on the ARTM platform.
MECH	Gaming NFTs: Minted as ERC-1155's, adds functionality to previously existing software systems (skins, powerups, enhanced game play, metaverse VR world).
BRIDGE	Rechargeable multi-use NFT: As the owner is accessing various components of the ARTM ecosystem, ARTM is being debited from their NFT to unlock streaming, gaming levels, power-ups, etc. Once depleted, it can be recharged with more ARTM.
MYST	Rare and expensive NFTs: Community infusible with ARTM, hidden content becomes accessible to anyone who infuses into the owners NFT. This results in an NFT that may be only owned by one, but certain features are unlocked for anyone willing to infuse. Owner receives infused proceeds.
BOOST	Power-Up NFTs: Software systems that use NFTs as keys can utilize these NFTs to provide tiered access. In order to "power-up" an NFT, ARTM is infused into it to bring it up to certain levels. We see this useful in many applications including streaming, gaming, art, automotive and more.

PLATFORM TECHNOLOGIES

This table represents a high-level overview of some of the technologies that will be in use with the ARTM™ platform.

Blockchain Technology	Description
Minting Contracts	The core construct of all NFTs
Payment Gateway Contracts	This includes implementations like auctions and marketplaces for NFTs
Subscription Contracts	These are responsible for keeping track of subscriptions to various software services.

Software Layer Technology	Description
API Endpoints	<ul style="list-style-type: none">• Metadata access, unlocking/retrieving hidden content• NFT-owner authentication & access• Minting, managing, and selling NFTs
SDK's	SDK software for game and software developers to design blockchain/NFT enabled components.
White-Labels, powered by ARTM	<ul style="list-style-type: none">• Exclusive marketplaces for partners to build and sell their own unique NFTs. Designed to represent the values of each partner individually, the ARTM platform unlocks a whole new world of NFT based products and services.• Integration of white-label marketplaces into our primary marketplace aggregator for maximum visibility and added NFT liquidity.• Custom NFT smart contract development ensuring compatibility throughout the whole of the ARTM ecosystem.

ARTM™ PLATFORM FEES

This table provides a sample of the initial paid features that the ARTM™ platform will implement for using various features (competitive fee schedule will be announced at a later date).

Feature	Description
NFT Minting	This is a generic minting fee that is associated with each asset minted from an ARTM developed smart contract.
IPFS Storage	Metadata is the heart of every NFT. Metadata can be text, images, video, and just about any other form of media. There is a cost to host and maintain metadata in a globally accessible, distributed filesystem such as IPFS.
Blockchain backed IPFS Storage	For high-end luxury NFTs, metadata longevity is key. By working with leading blockchain IPFS pinning services we are able to preserve NFT metadata for 100+ years for a one-time fee.
Unlockable Metadata	Nothing says “exclusive” like unlockable metadata. This is an additional feature that can be implemented to create unique NFTs that have built-in additional value for its holder.
Transfer Restrictions	Nothing says “even more exclusive” than an NFT that can be transfer locked to a single owner.
Asset-Backed NFTs	By infusing ARTM into an NFT, value can be determined by the asset that is contained in it.

USE CASES

Modern blockchain technologies have completely changed the landscape of not only cryptocurrencies in general, but also of how we build revolutionary new products and services. In the age of metaverse, the things of yesteryear are aggressively transitioning into a digital format which relies extensively on next generation technologies to deliver. Let's talk about NFTs and how the ARTM™ platform opens up a whole new world to third-party application developers.



NFTS NON-FUNGIBLE TOKENS

NFTs have paved the way for some incredibly unique capabilities. Through the use of NFTs, developers can create digital marketplaces and custom ecosystems for users wanting to sell, trade, or use digital assets. A digital asset can be anything from a song, movie, or music video, to a photograph or a piece of digital art. On March 11, 2021, a piece of digital artwork was sold in the form of an NFT for \$69 million USD (4). As of this writing, this is the highest priced NFT in existence.

The primary reason developers would implement NFTs over a system of "digital goods", is that the NFT provides cryptographic proof of ownership, thus preventing fraud. By releasing assets as NFTs, this provides long-term value for the digital and physical assets that the NFT represents. This technology is lightyears beyond simply adding numbers and products in a database to represent "ownership". The future for all companies dealing in digital assets is the NFT.

DIGITAL MEDIA

Here's a short list of some amazing digital media use cases that will be enabled by the ARTM™ platform:

Video content distribution rights

NFTs can be used as “keys” if you will, that can unlock a product or service. An example of this would be where an artist or content creator sells a copy of a digital movie in the form of an NFT. This would allow for the owner of the NFT to view the movie, while also providing a mechanism for the movie to be sold or traded at a later date should they no longer desire to own it.

Streaming event access

Similar to “static” video content distribution, NFTs can also be used as a “key” that can unlock access to live streaming events, as well as archived “static” copies if desired. Artists and content creators will be able to issue blocks of NFTs that will grant access to a specific live streaming event (or events, in other words a form of “subscription”). Imagine a popular artist selling 50,000 digital seats for an exclusive “unplugged” live private streaming event. This example only scratches the surface of what can be facilitated through the ARTM™ platform. Not only can this be accomplished by the sale of ARTM™ NFTs, but these “tickets” can also be traded or sold to anyone at a later date and time.

Music production rights

Similar in nature to video content distribution rights, artist and content creators will also be able to leverage NFTs to grant access to digital music. With NFTs, you can now purchase and later re-sell a digital album at will.

NFTs also leave room for artists to release different versions of their albums. An example of this would be an “enhanced”, or “limited” edition of an album which may include digital rights to behind-the-scenes video content, or possibly even digital image files.

Digital image ownership rights

The ability to securely sell and own digital art/images is now possible through the use of NFTs. Artists and content creators will be able to license or sell their work through the use of ARTM™ NFTs as they see fit.

In the use case of licensing, NFTs can also provide the potential for time-based access to images and digital media. NFTs can be designed to “expire”, requiring the licensee to purchase a new license in order to legally display an image on a website or within a mobile app. The sky is the limit.

PHYSICAL PRODUCTS

Whether you sell cars, hats, hoodies or widgets, there is no reason not to include an NFT with it. The technology is here, and ARTM™ will help you use it.



Certificates of Ownership & Authenticity

Using ARTM™, you unlock the ability to create NFTs that represent ownership and authenticity for your products. Through the use of our platform, creating unique NFTs and attaching them to your products will never be easier.

For companies manufacturing high-value items, a digital “certificate of authenticity” or “certificate of ownership” will add another layer of prestige and pride of ownership for your customers. Taken one step further, this token can be sold or traded at a later time by the true owner of the product. Thanks to blockchain technology, this transaction can occur virtually fraud-proof.

GAMING

The gaming landscape will never be the same. By harnessing the power of blockchain, we are able to bridge the world of in-game currencies and digital merch, with the gamer's actual wallet.

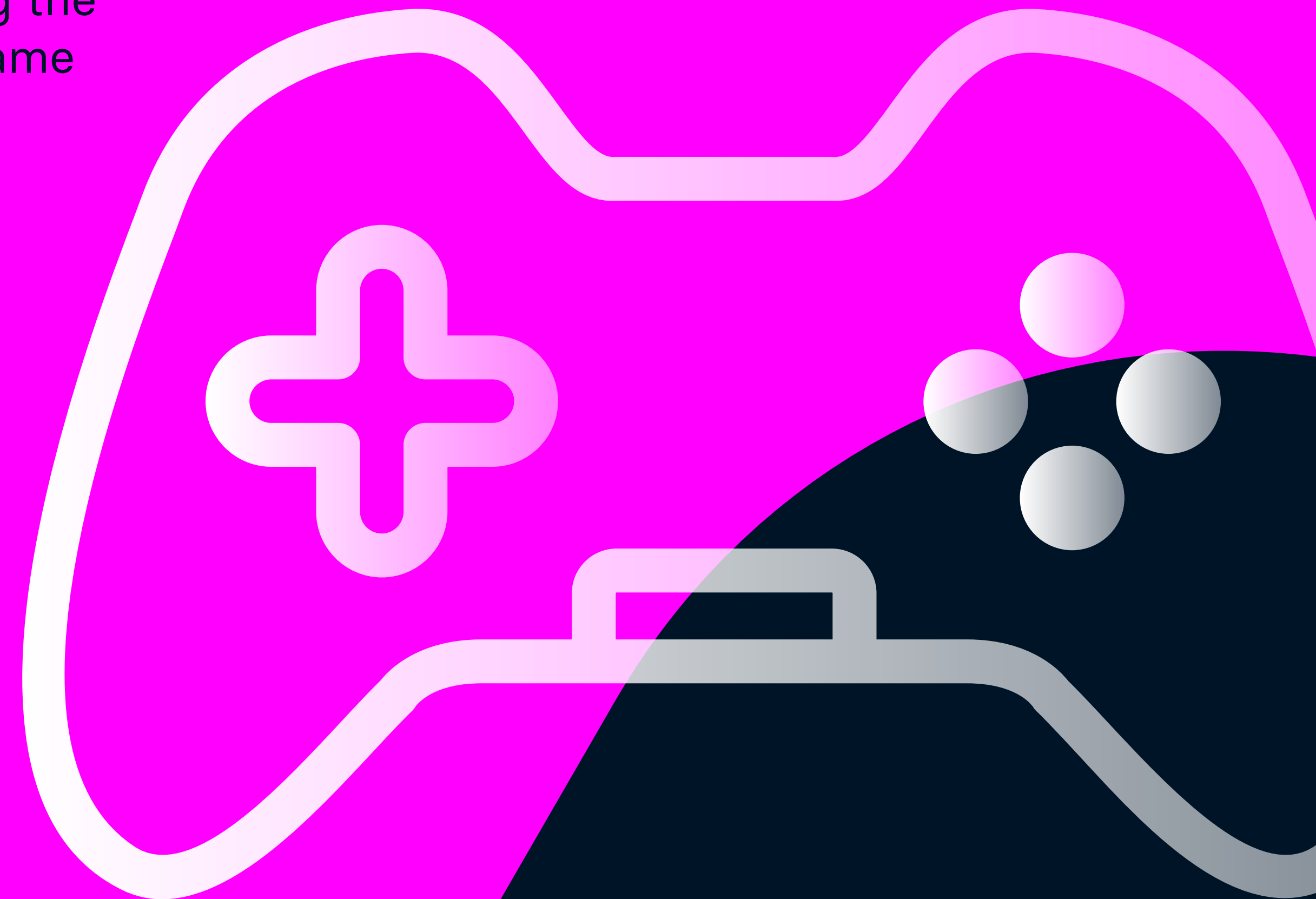
All of this is made possible through NFTs and FTs.

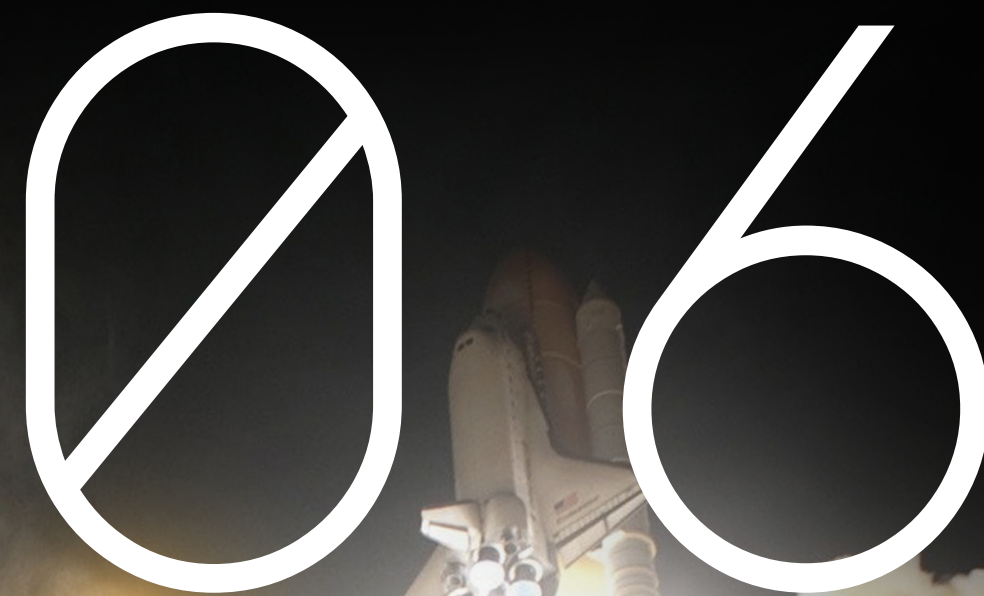
Currencies

In-game currency has always been sort of a conundrum for gamers. While it has great value inside the game they play, it typically has zero value anywhere else. Blockchain changes this. Through the use of FTs, game developers can tokenize in-game currencies with real cryptocurrency that can be traded or used inside and out of their platform. Here's to that coffee you just purchased compliments of the bounty bonus you just received.

Merch

Similar to in-game currencies, the same problem applies with digital merch such as skins or emotes. By distributing in-game merch as NFTs, the gamer is empowered to trade and sell their merch to anyone they want, anytime they like. The sky is the limit when you implement NFTs as part of your game design.





THE ARTM TOKEN

What is ARTM™?

ARTM™ is an ERC-20 Token that was created on Ethereum Mainnet. It has a fixed total supply of 1 Trillion tokens.

You can view ARTM™ [here](#)

What does it do?

The ARTM™ token is a utility token that is used throughout our ecosystem as a means of unlocking features, services, and satisfying platform related fees. For example, ARTM™ tokens can be used to enable unlockable metadata and blockchain based IPFS pinning capabilities for NFTs (see “ARTM™ Powered NFTs” for more details). It can also be used to reduce the platform fees related to minting and other features we’re implementing (see “ARTM™ platform fees” for more details). In summary, ARTM™ tokens are the primary fuel that we use to create complex branded NFTs and innovative crypto applications in the gaming, aviation, automotive, art, music, television and movie industries.

Is ARTM™ a DeFi Token?

No, ARTM™ is not a DeFi token by definition. It does not have any built-in logic that will provide holders with passive gains or losses if the token is transferred/sold. In the application of the token, we did not want to penalize or incentive users for simply holding or using the token. We believe that all incentives and penalty mechanisms should be strictly opt-in, and thus decoupled from the token logic itself.

For ARTM™ holders who are interested in DeFi application, DeFi protocols such as Uniswap, Sushiswap, Pancakeswap can accommodate this to a degree.

Platform fees?

Initially the ARTM™ platform will require either ETH or ARTM™ to pay for any platform fees. If the fee is paid using ARTM™, the fee will be reduced accordingly for the holder.

How much does it reduce it by?

ARTM™ will implement a simple year-by-year fee reduction when fees are paid in ARTM™

Year 1: 50% discount

Year 2: 25% discount

Year 3: 12.5% discount

Year 4: 6.25% discount

Year 5: Discount discontinued

Can ARTM™ be used on other blockchains?

Yes. The ability to bridge ARTM™ tokens between compatible blockchains played a major role in our design decisions for the token. ARTM™ can be wrapped and transferred into any popular blockchain that supports bridging of ERC-20 tokens. As of this writing ARTM™ has already been bridged over to [Polygon](#), and the Layer 2 solution [zKSync](#).

TECHNICAL DATA



Blockchain Technology

The Ethereum Mainnet blockchain will host all ultra-high value NFTs created by the ARTM™ platform. We believe that the security, scalability, and decentralization of the Ethereum blockchain properly provides the most robust and secure environment for long-term growth and stability. Although we are aware of other blockchains that are compatible with Ethereum, we have chosen to avoid these blockchains for certain client projects as we do not believe that they properly balance the “Scalability Trilemma in Blockchain” (1).

Why Ethereum?

“Ether, the internal network currency of Ethereum, has experienced a surge in popularity unlike any other coin in the cryptocurrency market; Ethereum is not just another blockchain technology, it has found a whole new application for cryptocurrency.” (2) The ability to run decentralized blockchain applications (“dApps”) on Ethereum is what provides Ethereum with intrinsic value. It’s not just another Bitcoin clone. It’s a platform that provides unlimited technical and commercial application. As technology matures, we will continue to evaluate other Ethereum-based and secured blockchain technologies to determine suitability for future projects and platforms.

Smart Contracts

Smart contracts are tiny applications that run on certain blockchain technologies such as Ethereum. Technical experts often use the example of a vending machine when describing smart contracts to those who are unfamiliar with the technology. A vending machine is programmed to receive a certain amount of a currency, and in return it will provide you with a product you select. If you provide too much currency, it will give you a refund of the difference. If you do not provide enough, it will not dispense your selected product. Smart contracts operate in a similar, yet infinitely more complex manner. So why do we care about this? Simply put, smart contracts are the core of not only the ARTM™ token, but also of the NFTs the ARTM™ platform will create. While the ARTM™ token was implemented as an ERC-20 smart contract, NFT implementations will use ERC-721 and ERC-1155 (5) smart contracts. As NFT technology matures, we will adopt newer smart contract standards to enable enhanced features and usability.

CHALLENGES & CONSIDERATIONS

Ethereum “Gas Price” / Transaction Fees

One of the biggest challenges we face in not only implementation, but also adoption, is the current issue of the “gas price” on Ethereum’s “Layer 1”. Given the high cost, we will need to implement a scalable solution that will bring the cost down for the NFTs that we intend to “mint”.

At a very high level, “gas” is what allows transactions to be processed and for code to be executed on the Ethereum blockchain. The purpose of “gas” is to prevent certain unintended behaviors from occurring on the network, such as a malicious application consuming endless computational cycles.

Proposed Solution: Layer 2 Scaling

As of this writing, the cost to create a single NFT on the Ethereum blockchain is over \$100 USD. The proposed solution to bring down this cost is a concept known as “Layer 2 Scaling”. Layer 2 scaling provides a mechanism to “offload” the computational resources required to process transactions or contract executions. By offloading these transactions to “Layer 2”, the gas price used when the transactions are rolled back into the Ethereum “Layer 1” Mainnet has been decreased to a level that is acceptable for mass “minting” of NFTs.

Given that NFT creation is done through the execution of smart contracts, this limits the scaling solutions available to us as not all solutions support Ethereum’s

Virtual Machine (EVM). One such solution that does support EVM compatibility is “Optimistic Rollups” (6) which is currently being developed by Optimism PBC (7). Several high-profile projects are already running on the Optimism testnet and are experiencing dramatic reductions in gas prices. (8) In recent months several new EVM compatible Layer 2 Scaling solutions have come online for testing and mainnet deployments. As mentioned earlier, we will continuously evaluate all available solutions to determine feasibility for NFT projects and platforms.

Smart Contract Security

There are several high-profile examples that have occurred in recent years where code issues present in a smart contract have resulted in the loss of crypto worth upwards of millions of USD. The security of any smart contract we develop is paramount.

Proposed Solution: Smart contract audits & multi-sig wallets

Our proposed solution to security with smart contracts is proper coding techniques, audits, and the use of multi-signature wallets to secure funds. We will be working with credentialed Smart Contract developers and auditors to ensure the highest level of code quality and security.

ALLOCATION OF ΔRTM TOKENS

Our proposed allocation of these tokens is as follows:

50%

Public Crowdsale

50% of the tokens will be sold through a crowdsale smart contract.

20%

Reserved for Community

2.5% will be given to charity.
17.5% will be reserved for future community rewards.*

25%

Founders & Team

25% of the tokens will be created for founders and team members.*

5%

Company

5% of the tokens will be immediately available for incentives, marketing, and strategic partnerships.



Vesting Schedule

To promote longevity and long-term involvement by founders and team members, the following guidelines have been established to govern token vesting:

- ▶ Any tokens reserved for team members will be locked for 6 months, and then 25% of them will be distributed at that time. The remaining 75% of the tokens will be released in 12.5% increments every 3 months for 18 months resulting in a total vesting time of 24 months.
- ▶ 50% of tokens reserved for future community rewards will unlock after 3 months, and the remaining 50% will unlock after 6 months.

*Please see vesting schedule for token release timeframe.

CORE TEAM

Jamin Meyers

Software Systems and Design Lead

Jamin is a full stack developer with over 25 years experience creating and maintaining web-based software applications. His latest work involved developing Web3 applications (dApps) and cross-platform native and web apps.

Ryan Farley

Blockchain Lead

Ryan is a Sr. systems engineer and software developer with close to 20 years of experience building and maintaining enterprise solutions for the US Air Force.

Connor Jennings

Art Direction & Design

Connor is a multidisciplinary designer & art director with an eye for the latest thing. He's been working on advertising campaigns across emerging channels, digital, social as well as TV and print. Recently he has been leading re-branding and design efforts for large-scale, corporate identity systems.

Gillian MacMaster

Social and Marketing

Social Media Manager with experience working for luxury brands through to tech startups. She keeps her finger on the pulse for new and emerging social trends.

Zechariah Nicome

Communications

Over the last 7 years as a Communications Specialist Zech has consulted with numerous successful businesses to maximize both their internal and external communication. His priority is helping companies clearly and promptly communicate to current and future clientele while simultaneously keeping internal communication as efficient as possible.

DEVELOPMENT MAP

Q3

2021 – The ARTM™ Token

- Initial platform research and development
- ERC-20 & crowdsale smart contract research, development and audits
- ARTM™ token created / founders sale

Q4

2021 – Token Sale

- ARTM™ token sale launched (Private / Public)
- Core NFT smart contracts research and development
- Community reward mechanism development

Q1

2022 – NFT'S & Multimedia

- Initial core NFT smart contract implementation and testing
- 1of1 NFT Marketplace Launch
- Multimedia NFT use case (NxtGen Streaming)

Q2

2022 – Gaming & More

- Multimedia/Gaming NFT Partner Launch
- Research and development for merchandise tagging use cases

Q3

2022 – NFT Partner Launches

- Automotive NFT Partner Launch (TBA)
- Luxury Brand NFT Partner Launch (TBA)



REFERENCES

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03

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04

<https://techcrunch.com/2021/03/11/beeples-69-million-nft-sale-marks-a-potentially-transformative-moment-for-the-art-world/>

05

ERC-1155 Multi Token Standard
<https://eips.ethereum.org/EIPS/eip-1155>

06

Layer 2 Scaling: <https://ethereum.org/en/developers/docs/layer-2-scaling/>

07

Optimism PBC: <https://optimism.io/>

08

Ethereum scaling solution Optimism delays its mainnet launch at least until July <https://www.theblockcrypto.com/post/99511/ethereum-scaling-solution-optimism-delays-mainnet-launch-estimates-july>