



\$STYLE Protocol:

“Transcend identity across the multiverse.”

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Introduction:

Preamble

STYLE Protocol aims to bring monetization and utilization to any Virtual Asset in any game, metaverse or virtual world. Based on NFT-sublicensing mechanisms, the protocol enables true interoperability of Virtual Assets and NFTs across such multiverses.

When imagining a future with multiple fully virtual or augmented reality metaverses as potential markets for utilizing and monetizing Digital Assets, one envisions a mix of decentralized and centralized platforms. The multitude of these worlds will lead to intransparency and barriers that impede how Digital Assets can be of utility and grow value beyond borders. Such Digital Assets range from artwork over any form of virtual items with a certain utility and/or connection to physical objects or virtual skins, pets, virtual fashion and beyond.

There will inevitably be both a strong need for interoperability, meaning the desire to “move” things seamlessly between multiverses and forms of monetization for some or even all parties involved. Hence, there lies a considerable opportunity: Bridging metaverses and transforming items to be interoperable between multiple worlds (multiverse). STYLE Protocol aims to be the hub that bridges the current gap between web 3.0 and, e.g. gaming companies (and others) to create interoperability and cross-multiverse utilization while being embedded in play/rent/...-to-earn principles and guilds, always assuring decentralized frameworks.

The goal is to further enhance users (e.g. players/customers) to utilize assets they create, own, or repeatedly use across metaverses and games.

Vision

STYLE Protocol’s vision is to become the go-to multiverse-backbone that helps maximize the utility and value of smart Digital Assets and Virtual Goods.

Definitions

\$STYLE: The protocol’s native utility token. (ERC-20 standard)

Digital Asset: Usually, but not necessarily, a NFT of some sorts that is either a collectible, piece of art or digital good such as; Crypto tokens, NFT-Art, virtual land, POAP etc. (For this paper, the terms “Virtual Asset” and “Digital Asset” are used equivalently)

Virtual Asset: Usually, but not necessarily, a NFT that is either a collectible, piece of art or virtual good such as; Fashion wearable, skin, weapon, armor, pet etc. (For this paper: In-Game or In-Metaverse asset; the terms “Virtual Asset” and “Digital Asset” are used equivalently)



Foreign Usage: Displaying or utilizing the function or value of any Digital Asset in a different multiverse than the one such Digital Asset was primarily designed and minted for.

Phygital: Shall mean any combination of physical and virtual good. (For this paper: A digital/virtual counterpiece to the physical item.)

Metaverse: A decentralized virtual or hybrid environment where players come together in 3D (potentially with customizable avatars) in order to experience, play or spend time together. Metaverses usually allow players to co-create, own or build in the world.

Virtual world: Any type of virtual environment for people to spend time in and interact with. (For this paper, the terms “Virtual World” is used equivalently to represent “Metaverses”, “Games” and all other “Environments”)

Game: Any type of playable virtual or hybrid environment. (In this context, primarily online and multiplayer.)

Hybrid: Shall mean any combination of physical and virtual environments. (For this paper: A digital/virtual extension of physical representation.)

Multiverse: A combination of environments such as metaverses, virtual or hybrid worlds and games. A universal experience where somewhat all come together and are playable and can be interacted with on multiple levels and to a different extent.

NFT: A non-fungible token is a record of ownership on the blockchain verifying an associated asset.

Minted NFT: Means any non-fungible token that has been published on a given blockchain and is therefore unforgeable (and tradeable).

Liquidity Bootstrapping Pool (LBP): A contract that manages a core pool that contains tokens to be used on an exchange. The main inspiration behind an LBP is the ability to launch tokens in a fair community focused environment.. To achieve this, multi-token pools are set up with a project and additional collateral token pools. The weights are then set in favor of the project token (at first) and, over time, are gradually flipped in community holders position by end of the initial public token launch.

Supply Chain: Generally a process or sequence of creation and providing goods/items into a direction of consumption. (For this paper: The sequence of moving any asset into usability for players/consumers in the multiverse.)

Owners: In this paper, Owners are people bringing Assets into the protocol to be used within the ecosystem. These can be existing NFTs or off-chain 3D files.

Tailors: In this paper, Tailors are manipulating Digital and Virtual Assets in order to enable them to be used across multiverses, e.g. creating a 3D image from a 2D asset or fitting a 3D asset for an environment.

Environments: In this paper, Environments are virtual worlds, metaverses or any ecosystem within the multiverse utilizing the protocol’s supply chain to bring Assets into their world for their players and customers to use.



Project Overview:

Why?

Online environments are growing. The number of active players and people with identities in virtual worlds is increasing steadily. The growth of decentralized and crypto-powered metaverses has unleashed a wave of open worlds. The availability of devices enabling hybrid experiences will further accelerate the use cases and therefore the adoption among the population. Lastly, the gaming industry is growing rapidly and the number of active players amongst the globe is increasing drastically. It is reasonable to assume that a fraction of “classic” gaming will evolve in the direction of decentralized participation models for their players and tokenized systems.

Existing metaverses are marketed as open and accessible, yet different underlying technology stacks, blockchains, and 3D virtual engines prohibit the compatibility of these worlds.

- \$STYLE Protocol aims to solve the underlying interoperability problem and connects worlds beyond their virtual borders to allow full usability for users

The NFT technology is praised as the future of virtual identification and functions as a pillar technology for verifying assets. But some challenges remain:

- NFTs are not automatically compatible with any environment
- NFTs are missing Metaverse and web3 usability, as they have no automated 3D counterparts
- NFTs can not be utilized for continuous monetization concerning virtual worlds

Besides, only a few virtual worlds (games) utilize NFT technology to verify the individual ownership of Digital Assets or “virtual goods”. There is a deep fracture between game assets, metaverse assets, and purely 2D published NFT-Collections, here is why:

1. NFTs and Assets are not automatically utilizable

The metaverses and web3 environments are frequently advertised as an interoperable, natural evolution of web2 and social media. Yet, in reality, many hurdles exist to make the experience for players truly compatible with different games and environments.

2D NFTs must have 3D files associated and embedded to have usability in any virtual environment. On top of that, the connected virtual environment must have the means to fetch the files or attributed 3D models of an NFT for owners to be usable.

Currently, NFTs can not be used and freely displayed or molded in, for instance, 3D environments, games or metaverses as they frequently have no underlying usable assets associated with their 2D counterparts. This results in profile pictures as the only NFT use case today.

2. Assets are not immediately 3D compatible

Regardless of any virtual good being a minted NFT - on-chain - or a basic 3D file - off-chain - saved on a harddrive on a computer, neither of the assets are by default compatible with other systems outside of their initial format. Also a phygital good will only have the virtual counterpiece minted as verification on chain.



Example:

Think of Van Gogh's "12 Sunflowers" that genuinely only exist once as a physical 2D object, currently located at Neue Pinakothek, Munich.

This results in untapped potential of millions of creative ideas across the globe that could be usable in 3D environments, games and metaverses, but are currently not.

Example:

Imagine the "12 Sunflowers" are a 3D object and could be placed in a virtual or augmented world to be admired in 360 degrees.

3. Virtual assets/NFTs can currently not be monetized

On top of simply bridging Digital Assets across multiverses, it would be great if people can e.g. lend them out to each other, eventually creating revenue streams for the initial owner or creator.

Thousands of NFTs are sitting in wallets unused. Often bought purely for speculative purposes. At the same time, projects with a loyal following from around the globe are often simply communities that bring people together and are looking to integrate more use cases for their collections. Most use cases built around an NFT-Collection are games and small exclusive worlds where these holders can get together, but have very limited social value and therefore very limited adoption or reach. Virtual Assets could be made usable across multiple worlds, metaverses and games. Automated wider availability of the NFTs, assets can lead to more utility and an enhanced experience and value for collectors.

Simultaneously, 3D Assets that are not on-chain and stored locally after creation could become utilizable across the multiverse for enhanced availability of objects and a flourishing supply chain for all users.

Virtual Assets regardless of minted NFTs or unminted raw 3D files can be brought to virtual worlds in order to provide users with more assets to use, generating revenue and yield when being used for the original owner or creator.

4. Foreign usage of Virtual Assets has no time-stamp option

For all kinds of Digital Assets, there are no public functions in place to allow usage of assets for fixed periods of time. Prepositioned timestamps on virtual assets can allow controlled foreign use. A time component can be integrated into NFT lending or cross-metaverse compatibility, allowing for NFT utilization across worlds bound by time. This allows for short-term lending and utilization of assets for fixed periods of time.

Example:

A Crypto Punk, BAYC or Azuki can be turned into a multiverse skin that can now be rented by individuals to wear in the game, metaverse or virtual world of their choice.

Solution: STYLE Protocol

The previously outlined challenges in the web3 and gaming ecosystem can be overcome with a decentralized 3D virtual asset utilization and sublicensing protocol. It is called "STYLE Protocol".

The main principles of the protocol are:



1. NFTs can be staked on the open protocol to unlock advanced usability across the multiverse
2. Assets can be brought into circulation and used across the multiverse
3. Assets can be monetized with usability and sublicensing across multiple virtual worlds
4. A Decentralized Autonomous Organization (DAO) governs and regulates the supply chain and the protocol's principles
5. The protocol's advantages are freely available for anyone to use and to participate in the ecosystem - Creators, Owners, Tailors, Metaverses, Games...

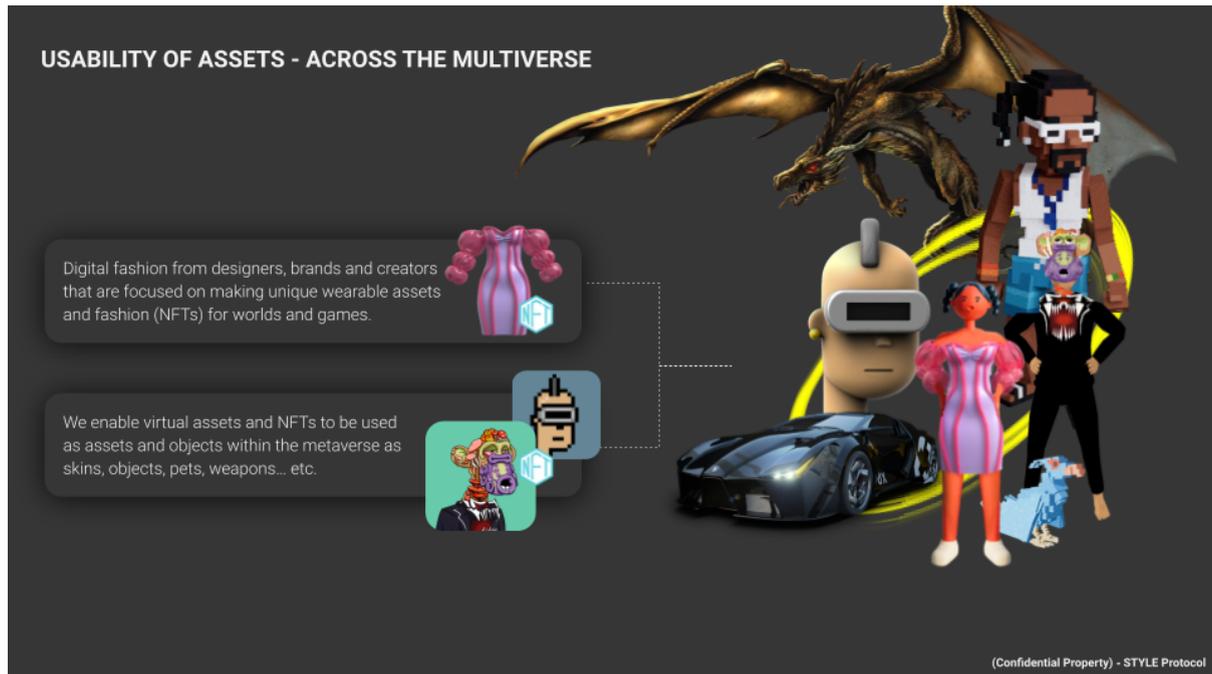


Figure 1. In this graphic: *Examples of bridgeable assets across games and metaverses. Cars, Skins, Fashion, Avatars, Pets...*

To make the protocol possible, three things are created:

1. A technical infrastructure, that the different relevant stakeholders of the multiverse can connect to and engage with. (Stakeholders include: NFT-Owners, 3D-Creators, Metaverses, Games)
2. A decentralized autonomous organization (DAO) to govern the protocol's participants and supply chain to ensure community and participant-focused development.
3. An ecosystem utility token, enabling both behavioral rewards and acting as a voting tool for participants of the protocol.

The \$STYLE Protocol:

Utility for Metaverses and Games

The vision is to enable an automatic way to bring any NFT or virtual asset into any other game, metaverse or the virtual world of the owner's choice through an automated „decentralized metaverse



exchange“ -(or “DMX”) for true interoperability. At the same time, it enables time constraints for sublicensing or rental purposes of said assets and NFTs. - *Think: Fashion, Skins, Pets, Avatars or In-Game assets like Weapons, Vehicles etc.*

Every asset holder or creator of a virtual 3D item can bring it to the protocol to unlock the advanced usability and access these significant options:

1. **Enable usability of existing 2D-NFT in 3D environments such as games or metaverses (Utility in 3D)**

... to:

2. **Use the singular asset for cross-world utility for the holder him/herself. (Active bridging of assets.)**

... and/or:

3. **Enable sublicensed derivatives for people to rent through the protocol. (Activate licensing of assets.)**

The protocol thus primarily aims to make Digital Assets available with advanced usability in the actual game or metaverse. To enable this, a new technical utility to the assets is introduced, which can best be described as sublicensing/derivatives.

Sublicensing (NFT-Derivatives)

All games and metaverses connecting to the STYLE Protocol for interoperability and usability of Virtual Assets in their respective environments have different engineering principles.

The metaverses run on different blockchains and player logics, which implies the issues mentioned above. The games run on various 3D engines to display the virtual worlds creating a different visible experience, which is the second highly relevant challenge.

A unified file format for Digital 3D Assets that can be linked to the NFT and then works in all metaverses and games is both not feasible and also not in the strategic interest of the different environments. Assets in virtual environments look essentially different. On top of that, there can be various utilities associated with Digital Assets in different games.

- *Think: Fashion, Skins, Pets, Avatars or In-Game assets like Weapons, Vehicles etc.*

To overcome these difficulties, the STYLE Protocol draws derivatives or sublicenses of assets and NFTs to have these applicable versions compatible with different environments on a blockchain and 3D virtualization level. Anyone looking to bring this utility to their assets can connect to the STYLE Protocol.

This means that the sublicensed versions and derivatives of the initially staked NFT are applicable and usable with different blockchains and thus the correlating games. Also - *and this is the major point* - they are turned into **functional** assets inside the metaverse or game and can additionally be rented out as such to other players in these virtual worlds.

Examples:

- *A piece of fashion can be worn across different virtual worlds and metaverses and lent to other players*



- *Skins and avatars can be used across different metaaverses and lent to other players*
- *Objects (Example: Such as in-game weapons) can be carried and used across different virtual worlds and lent to other players*
- *Pets will follow you around in the games and metaverses of your choice or can be rented out to others*
- ...etc.

STYLE Protocol enables genuine in-game and in-metaverse usability of your assets and advanced usability across multiple Virtual Worlds

The digital ownership verification of non-fungible-tokens (NFTs) provides the underlying technology for licensing of assets. In addition to providing the infrastructure for metaverses, games and NFT holders, the protocol aims to maximize utility for its participants.

Ecosystem participants

The protocol is powered by any participant in the ecosystem and web3. Every metaverse or game enthusiast is invited to participate in the DAO or act as an active ecosystem member. This ensures an entirely decentralized and scalable protocol.

Holders of renowned NFT projects are rewarded with consistent revenue streams through lending their NFT-Derivatives by the STYLE Protocol to other players. The sublicensed NFTs that customers utilize generate cash flow for the NFT owners initially staking on the protocol.

Metaverses, Games and environments connecting to the protocol are also reimbursed with revenue participation when the 3D assets have been fetched through the protocol and the derivatives are utilized in their environment by users.

In addition to owners staking NFTs on the protocol and environments connecting to the protocol's supply chain for the utility of their players, there is a third and very crucial role. It consists of 3D generalists and developers to model and sculpt the derivatives of the staked NFTs for utility and usability in different environments such as metaverses, games or else. This particular group of participants is called "Tailors".

Summarized, the main stakeholders are:

„Owners“ = NFT owners staking the NFTs for interoperability or anyone bringing Digital Assets (such as 3D files) onto the STYLE Protocol. Anyone, from the initial NFT creator or "non-chain" 3D asset owner to a holder with an NFT in their wallet can offer this asset for bridging to the multiverse on STYLE Protocol.

„Tailors“ = Anyone interested in earning \$STYLE tokens by molding and adjusting 3D assets within the protocol to adjust the versions to different games and metaverses. Tailors can also directly upload 3D files and creations into the supply chain and act as creators for assets.

„Environments“ = Connected platforms, metaverses and games offering the finalized assets and creations for sale within their environments. The customers and players within these ecosystems will be able to utilize all Assets from the STYLE Protocol supply chain as avatars, skins, fashion, objects etc...

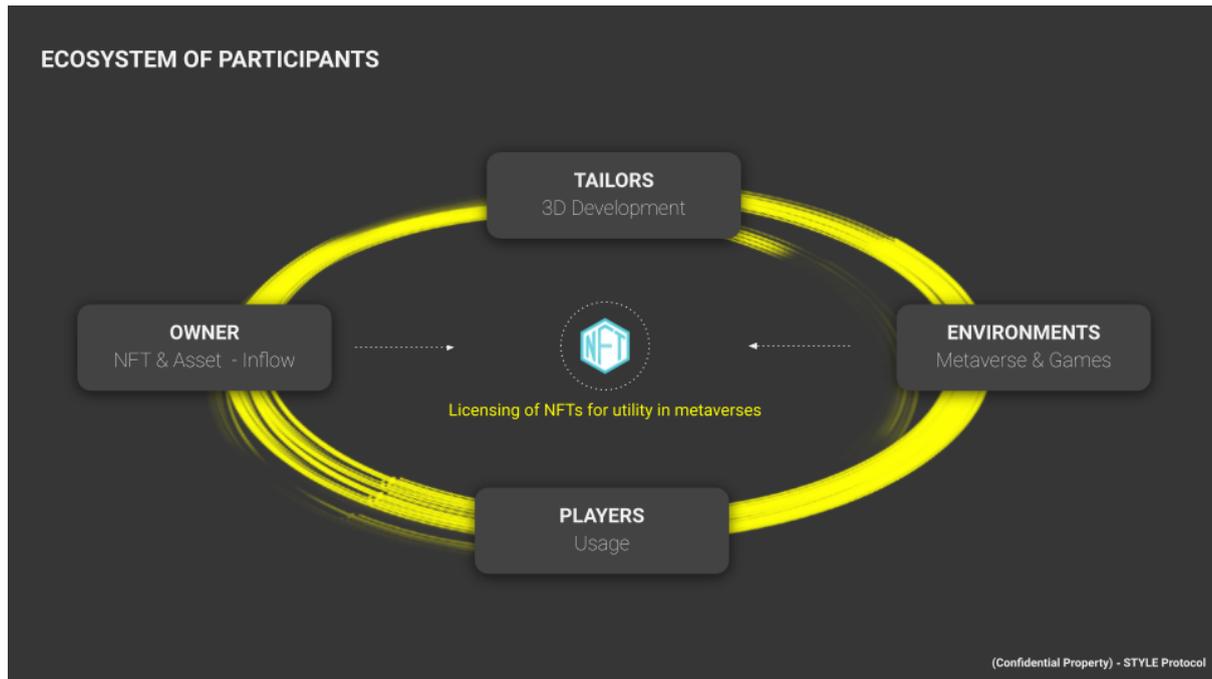


Figure 2. In this graphic: *The different participants in the ecosystem. Users are the beneficiaries as players in the games and metaverses.*

All of these participants in the ecosystem are incentivized through the protocol’s native \$STYLE token and have a lot to gain from joining the protocol.

Owners of NFTs or collection creators can monetize their NFTs further by offering them for sublicensing within the ecosystem to be used by gamers and metaverse players worldwide. Additionally, this advanced usability of NFTs can significantly upgrade existing NFT collections looking for more utility for their communities. Owners can decide which metaverses and games to make their NFTs available in. Furthermore they can choose the quantity of sublicensed versions (derivatives) that are to be made available in each world. (Example: A “Doodles” - NFT Collector decided to stake their NFT on the protocol. The “Doodle-NFT” will now be unlocked in a decentralized registry for all community Tailors to access and create metaverse and game derivatives for players to use. These can be skins, branded shirts or masks to use/wear in different environments. The owners decide upon the kind of utilization being allowed and which metaverses and games can unlock the NFT derivatives. Upon any sale of any item derived from the originally staked NFT, the owner takes a royalty. Additionally, if any of these assets, after purchase, are bridged into another world, the owner receives a royalty.) - See Figure 3. & Figure 8.

Tailors, the supporters of the community behind the protocol, stand to gain the most as they get reimbursed per asset created in fixed USDC. The value to be earned is determined by the owner and derived from the sales price, plus an additional royalty in \$STYLE token on all revenue that is generated from sales of their tailored assets in any of the worlds.

(Example: An Azuki NFT is staked on the protocol and made available for three metaverses/games with a quantity of 100 each per world. The tailor involved in the creation of the asset for 1 out of 3 of the metaverses or games gets a sum of USDC and \$STYLE of all 100 x sales-price of assets in the world.

A precise example could be a skin available for 50\$ x 100 derivatives in one metaverse. At a 10% commission for participation, the Tailor would make 5\$ in USDC. Assuming another 20% in royalties in this example, the tailor makes 1500\$ in this case for a singular asset creation. The revenue stream can be much higher with more expensive items or larger quantities.)

- See Figure 3. & Figure 8.



Environments are the final piece in the puzzle for true interoperability of assets. They are the ones where the actual connection for players and customers becomes a reality. Environments are primarily metaverses and games that utilize the open protocol and the decentralized infrastructure. In a more abstract way, environments can also be virtual shop owners or individuals owning land in some metaverses, who then decide to fetch STYLE Protocol assets to display and sell to their communities. Users in all environments can purchase the Assets in the native currency of the respective worlds. The games and metaverses utilizing the STYLE Protocols technology are rewarded an automated % in royalties in their native currency on all transactions in the ecosystem. (Example: Any metaverse or game can decide to utilize the protocol's open APIs to connect their marketplaces and worlds to the Digital Assets from the registry. This unlocks the supply chain provided by the STYLE Protocol to the players of this particular metaverse. The connected metaverse or game then makes a royalty whenever a user requests a Digital Asset and purchases in said metaverse or game. The participating metaverse can also push any of their Virtual Assets into the registry via API to offer them in other worlds. On any Asset utilized in another world that originally stems from this metaverse, again, there is a royalty flowing back to them.) - See Figure 3. & Figure 8.

All of the different roles in unison form a decentralized and completely autonomous supply chain of virtual assets for metaverses, games and all kinds of virtual worlds that choose to utilize the STYLE Protocol.

Decentralization of virtual assets

To allow scalability of metaverse environments, virtual spaces and the web3, assets and objects around the environments must be utilizable by anyone and compatible across specific spaces for an optimized user experience. Unified file formats are often advertised as an ideal outcome for interoperability and a scenario for compatible web3 environments. Unfortunately, such standards don't exist in reality.

There are three main reasons:

1. It is a huge technical effort to bridge an NFT from chain to chain adjusting for different blockchains or token ecosystems on which multiverses are built.
2. 3D worlds all look different. Any assets, regardless of it being a 3D version of an existing NFT or a completely new, not yet minted 3D file, will look different in every virtual environment and might be used for different purposes in any of them.

Example:

A BAYC-NFT can become a skin, whereas a Doodles-NFT might become a print on a hoodie or a mascot that sits on the player's shoulder like a parrot. Digital Assets will look one-way in Decentraland yet utterly different in Roblox, Adaland, Sandbox or any other emerging metaverse.

3. Every metaverse or game development studio has its own agenda. Many crypto-native metaverse publishers strive for interoperability and open access, whereas many other games and virtual environments remain centralized and "closed". The most apparent future scenario is a mix of open and closed worlds that are all used for different purposes and with different target groups in mind. It is unrealistic to believe that all participants agree on a unified file format for assets they want to monetize in their own environments.

Hence, the creation of the STYLE Protocol. It enables anyone to bring assets into whatever environment they want by creating verified sublicensed derivatives of the original Digital Asset through



staking and engaging with a decentralized and open protocol. Any environment can connect with the protocol to enable users to access millions of Assets from other environments and individual creators and brands, creating a gigantic personalizable supply chain for the future of web3.

The approach STYLE Protocol is taking appears to be the most scalable solution, as it includes people in the infrastructure layer. Similar to how networks utilize people staking their tokens to run the network decentrally, a decentralized “participation in bridging” or “proof of tailoring” also helps to grow the entire web3.0 and metaverse ecosystem faster as people are incentivized to get active in the space.

All participants in the ecosystem in this scenario are incentivized to share bridged asset availability with their virtual communities and environments. A native utility token of the protocol allows for decentralized reward streams and further strengthens the project’s scalability.

\$STYLE Token:

Token Introduction

Multiple participants, as previously outlined, work together to make the ecosystem work. The \$STYLE token is issued to incentivize different participants in the ecosystem and allow for continuous supply chain flow on a completely decentralized network.

The \$STYLE token is designed to be the backbone of the participants and value flow within the ecosystem. The primary beneficiaries of the token are people staking it and holding it in close participation to the protocol's activity. Additionally, the \$STYLE token allows for participation in DAO votings on the future development of the protocol.

Summarized \$STYLE token utility:

Holders of a constant minimum amount are eligible to:

- Join as “Owner” and connect your NFTs to the protocol
- Participate as a Tailor and earn rewards on the protocol

- Token holders can participate in DAO votings and the development of the ecosystem
- Staking token holders are eligible to enhanced DAO participation and yearly rewards

The token powers the supply chain by incentivising and reimbursing the three main participants (next to the users) that provide the infrastructure through the ecosystem, namely Owners of NFTs and assets, Tailors and environments.

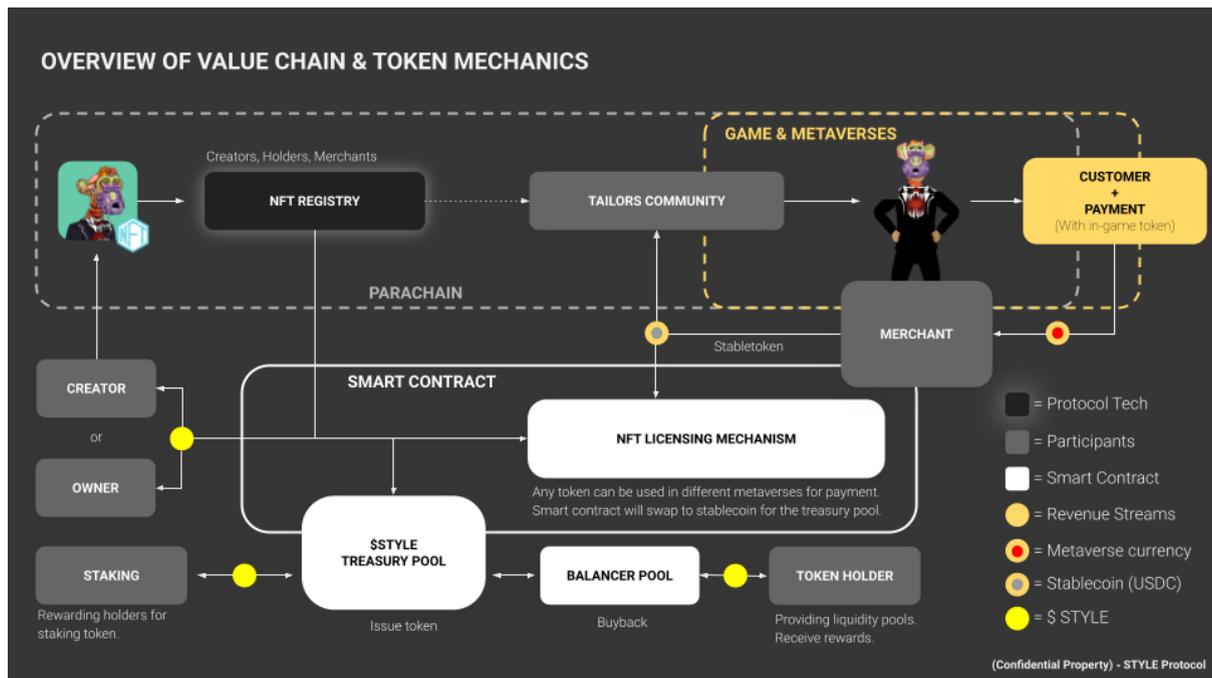


Figure 3. In this graphic: A summarized flow of value between the blockchain network built on polkadot and the protocols technical logic on the upper part, as well as the smart contracts inclusivity and connectivity on the lower part.

An example of the flow of a use case:

Assume a MAYC-Holder is staking their ape on the protocol to create cash flow through the asset while at the same time never losing ownership of the NFT when it is connected to the protocol. As an initial contributor to the ecosystem, the MAYC-Holder will participate with a permanent royalty and thus cash flow for his contribution. The Digital Asset, in this case, the MAYC-NFT, is unlocked in a frontend-web tool for all participating tailors of the ecosystem.

The contributor (owner or creator of NFT, here the MAYC-Holder) can decide:

- Which Metaverse/Game the asset will be made available in
- The quantity of availability in each environment
- What royalties are to be given to the Tailor and the Ecosystem at sale or rent

In conclusion, this will lead to new market dynamics and organic price findings of the sublicensed derivatives, as there will be price-quantity-relation with respect to the versions and rewards for others. (Value of a rare NFT with low quantity of derivatives > Value of a common NFT with a high quantity of derivatives.)

Since the Tailors have the NFT unlocked in the decentralized registry, they can apply to tailor the NFTs as per necessity; Avatars, fashion, pets, weapons ... etc.

Once finalized and approved by an internal governance for the quality of 3D files, the assets are automatically unlocked to the participating metaverses and games through the protocol's API.

The derivative assets are now available in the stores of the metaverses and games or can be fetched from landowners within the different metaverses to be displayed, sold or rented out. Embedded in this process, there are royalties distributed to the sellers, as well as to the Environments and Tailors.

The value distribution of revenue:

Sublicensed NFTs from \$STYLE Protocol are always paid for in metaverse or in-game currency to boost the native ecosystems of the protocol's partners.



After a % royalty of the sales revenue to the metaverse or game in their respective currencies has been distributed, the remaining sum of revenue is transitioned to USDC stablecoin at live current market price. From here on, there is a reimbursement in fixed USDC per usage to the tailor through the protocol's automated smart contract. The possible USDC reimbursement per item is related to the final price of the asset when sold and varies from asset to asset. The remaining sum of USDC is used to purchase \$STYLE automatically from the market in real-time.

Now the major remaining portion of the sales revenue of the STYLE Protocol ecosystem is transitioned to \$STYLE whilst having included the metaverses or games already and the tailors to a minor degree.

Another % of the remaining \$STYLE sum is now given to the tailors as they provide an essential service within the ecosystem. Lastly, the original holder of the NFT that staked it on the protocol is rewarded with a royalty of the revenue in \$STYLE.

The remaining \$STYLE token flows into a large treasury to ensure rewards for people staking the token. There is a yearly staking reward. To accommodate for high rewards, a large chunk of the protocol's revenue flows into the treasury. Additionally, the treasury holds 34% of all tokens initially.

Token Distribution

The tokenomics are primarily designed to support the flow of value between all ecosystem participants.

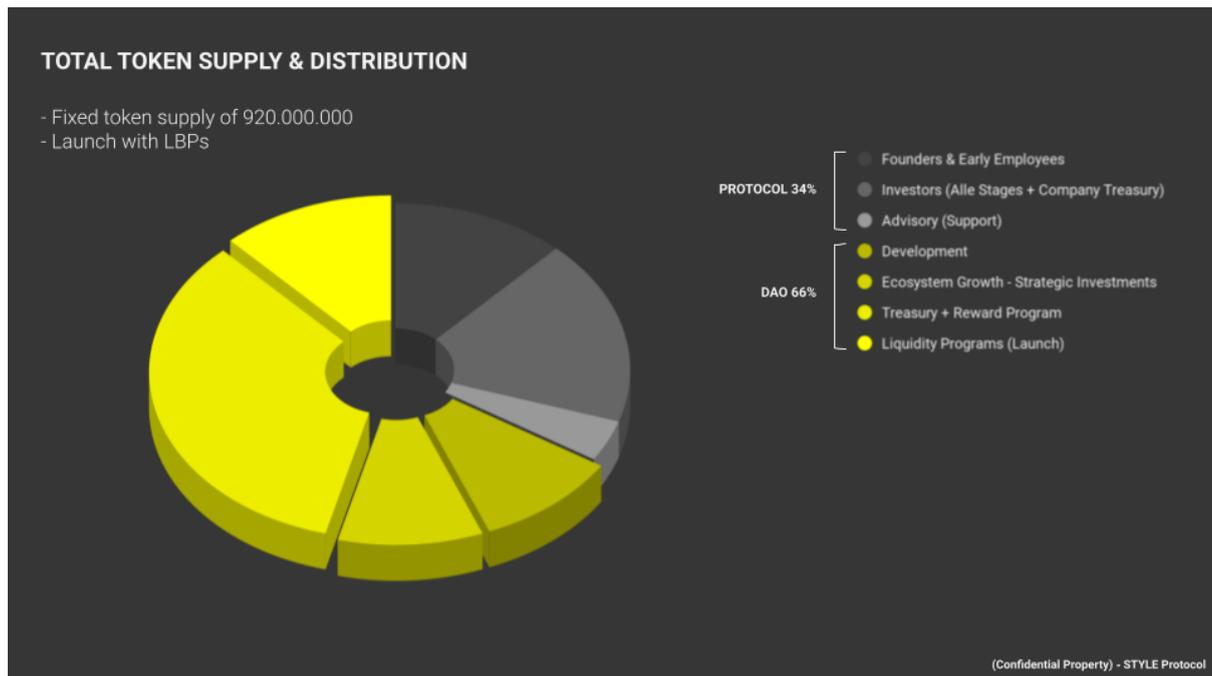


Figure 4. In this graphic: *Token distribution of the entire token supply.*

In written form, the distribution of tokens looks as follows:

Protocol (= 34%)

- Team 12%
(Linear Vesting over 48 months to ensure slow distribution.)



- Investors 18%
(Linear Vesting over 36 months to ensure slow distribution.)
- Advisors 4%
(Linear Vesting over 18 months to ensure slow distribution.)

Community / Later DAO (=66%)

- LBP Launch 12%
(Sold at token launch for anyone to participate. LBP-Launchpad)
- Ecosystem Growth 10% (Long Term)
(Locked first and then vested over 36 months to be invested strategically in growth and offered for funding of ecosystem projects.)
- Community Development 10% (Long Term)
(Initial and then vested over 60 months to be invested in long-term community building and growth of participants.)
- Treasury (Staking Rewards) 34%
(Large treasury for yearly staking rewards.)

Token Launch

The token will be launched publicly with LBPs (Liquidity Bootstrapping Pools). The date of the public launch will depend on market and project readiness. The distribution will be as organic as possible through the LBPs once activated for the community. Anyone can open pools and stake their token in exchange for the first 12% of the total token supply of \$STYLE.

Additionally, tokens are given out in selected airdrops and to participants before the public launch to reward early participants of the ecosystem. It is planned to distribute 2-3% of the token supply before the LBP launch to loyal participants of the early protocol and supporters of the project (Owners, Tailors, Environments).

For the LBP launch, an initial 12% are brought into circulation over a period of 2-3 days.

Token Details

ERC20 token is a standard used for creating and issuing smart contracts on the Ethereum blockchain. Most startups use ERC20 because it is easy to use, secured with a smart contract for secure transactions. Also, ERC20 allows different smart-contract enabled tokens a way to be exchanged. Tokens, in this regard, are a representation of an asset, right, ownership, access, cryptocurrency, or anything else that is not unique in and of itself but can be transferred. Plenty of well-known digital currencies use the ERC-20 standard. Some popular examples are: Tether USD (USDT) and USD Coin (USDC). However, ERC777 is the Token standard for STYLE Protocol. ERC777 is an upgrade for ERC20 that is fully compatible with the ERC20 standard and provides new features that are needed in STYLE protocol token.

ERC777 is a standard for fungible tokens and is focused on allowing more complex interactions when trading tokens. It brings tokens and Ether closer by providing the equivalent of a msg.value field, but for tokens. The standard also brings multiple quality-of-life improvements, such as removing the confusion around decimals, minting and burning with formal events, among others, but its killer



feature is receiving hooks. A hook is simply a function in a contract called when tokens are sent to it, meaning accounts and contracts can react to receiving tokens.

ERC777 is safe for decentralized exchanges and locked token issues, uses Hooks receive+send, and implements withdrawal functions to locked contracts. As seen in the following code, ERC777 is used from the verified version on open-zeppelin:

```
// contracts/GLDToken.sol
// SPDX-License-Identifier: MIT
pragma solidity ^0.6.0;

import "@openzeppelin/contracts/token/ERC777/ERC777.sol";

contract StyleToken is ERC777 {
    constructor(uint256 initialSupply, address[] memory defaultOperators)
        public
        ERC777("STYLE PROTOCOL", "STYLE", defaultOperators)
    {
        _mint(msg.sender, initialSupply, "", "");
    }
}
```

Figure 5. In this graphic: \$STYLE token smart contract using ERC777 based on openZeppelin

The ERC777 specification makes it mandatory to include support for these functions (unlike ERC20, where it is optional and needs to include ERC20 Detailed) but also mandates that decimals always return a fixed value of 18. Hence, there's no need to be adjusted.

Furthermore, ERC777 will provide operators, usually other smart contracts, that will be able to transfer tokens on behalf of their holders. If operators are not used it can be an empty array as input during deployment. For example; BulkSender provides the ability for holders to bulk send tokens at a reduced gas price and that will be helpful to minimize the cost of transaction between token holders. The main benefit of using ERC777 when using the "send function" is that token transfers to other contracts may revert with the following message:

"ERC777: token recipient contract has no implementer for ERC777TokensRecipient"

This means that the recipient contract has not registered itself as aware of the ERC777 standard, so transfers to it are disabled to prevent tokens from being locked forever. (For example, the golem contract currently holds over 350k GNT tokens, worth tens of thousands of dollars, and lacks methods to get them out of there. This has happened to virtually every ERC20-backed project, usually due to user error.)

Finally, the ERC777 standard is backwards compatible with ERC20, meaning you can interact with these tokens as if they were ERC20, using the standard functions, while still getting all of the niceties, including send/receive hooks.

\$STYLE DAO:

DAO Structure

Anyone can join the future decentralized autonomous organization (DAO) of the STYLE Protocol. There are however different levels of engagement. Three layers of participants exist.



Tier 1 - Executive Board

Decision makers on a higher level for strategic development of the protocol. People must be voted into the executive board.

Tier 2 - Supreme \$STYLE Holders

Anyone staking a minimum amount of token can join the secondary decision making tier in order to vote on changes and future development of the protocol.

Tier 3 - Every \$STYLE Holders

People wanting to vote on future collaborations and next projects can do so after verifying to be an active token holder.

Voting & Participation

Once the protocol flows are set up and the ecosystem is live for users and environments, a DAO decision-making webfront will be launched for token holders and elected decision makers to connect wallets and participate in the decision making of the protocol development.

Votings can be structured as follows;

1. Fixed time period and participants can vote “Yes” / “No”.
2. Fixed time period and multiple choice options.

The one to be used is highly dependent on the decision that has to be made and will be chosen by the person who suggests the decision initially. This person must be an active DAO participant.

Additionally, projects that can be supported through the protocol’s funds will be publicly visible on this launchpad, allowing token holders to vote on their favorite ones to be supported by the protocol. (As the protocol is fundamentally decentralized and open, all projects can utilize the protocol to bring assets in the ecosystem, but through various measures such as promotion, visibility, better royalties, the STYLE Protocol can support certain projects if this benefits the general growth of the ecosystem.)

Roles & Governance

In addition to participation in decision making, anyone is offered to take extra roles or responsibilities in the STYLE Protocol, for which this person is reimbursed in \$STYLE.

Besides the previously introduced (core) roles of “Owners, Tailors, Environments” and regular token holders, anyone can support the protocol with responsibility such as:

- 3D Governance

A person with special access to the registry for approval of 3D creations of Tailors into the various environments. An additional manual quality assurance layer.
(Must undergo KYC - Approved by the protocol’s DAO.)

- Community Developer

A person interested in locally promoting the protocol and bringing exciting NFT projects into the ecosystem. Will be given resources to host community events in local hubs (cities).
(Must undergo KYC - Approved by the protocol’s DAO.)



Future Outlook

Initially, the primary decision-making will be handled by the founding team, advisors and investors to ensure sustainable growth and initial development decisions. With the public token launch, the decentralization starts and more voting power will be given to anyone interested in participating and purchasing \$STYLE. After the token launch, when 12% are released to the public, distribution will strongly favor early participants and the general public. The founders, advisors and investors are vested with their tokens over several years to ensure the sustainable nature and purpose of the project.

All decision power will be decentralized from the beginning, hence, random token holders can participate. To ensure sustainable decision-making in the early and crucial phases of the STYLE Protocol, the public voting tool will be published a few weeks after the token release.

Protocol Tech:

Non fungible tokens (NFTs)

It is necessary to distinguish between Digital Assets off-chain and NFTs: An NFT is a non-fungible token, which is digital data stored on a blockchain. The Digital Asset, however, can also be stored on a centralized server. NFTs have an owner who can control their token ownership powered on the blockchain that follows two main standards, ERC 1155 and ERC 721. Assets are just files with no ownership; the control is from server admins only.

Some metaverses do not have NFTs marketplaces, they rather have marketplaces for off-chain Digital Assets. On the technical side, the STYLE Protocol is a licensing mechanism to bridge NFTs and Digital Assets to cross chains and cross metaverses. Environments, such as games and metaverses or marketplaces, can list and bridge the Digital Assets to STYLE Protocol and other chains or metaverses and vice versa. Leading to the bridging of NFTs, concluded by two things: NFT minting standard and hosted Blockchain.

NFT Use Cases & Minting Standard

Use cases of NFTs include ownership and the implementation of transactions by individuals and/or consigned to third-party brokers/wallets/auctioneers (“operators”). NFTs can represent ownership over digital or physical assets. A broad set of assets has been considered by the NFT community. Here are some examples of it:

- Physical property — houses, unique artwork (e.g. paintings)
- Virtual collectables — unique pictures of kittens, collectable cards, digital fashion
- “Negative value” assets — loans, burdens and other responsibilities

On STYLE Protocol, NFTs can represent anything from avatars, accessoires, wearable fashion assets to pets or any other metaverse and in-game object. There are two standards for NFT metadata:

1. Metadata on JSON; By saving properties such as body shapes on the JSON like the following example:



```

{
  "representations": [
    {
      "bodyShapes": [
        "urn:decentraland:off-chain:base-avatars:BaseFemale"
      ],
      "mainFile": "female",
      "contents": [
        "female"
      ],
      "overrideHides": [
      ],
      "overrideReplaces": [
      ]
    }
  ]
}

```

Figure 6. In this graphic: *NFT Metadata on JSON*

The properties will be fetched by the respective metaverse, a representation in the virtual environment is created and (in this example an avatar) is eventually shown. In this example, the metaverse software development toolkit (SDK) should provide the feature to show the avatar. The main issue in this example is that the SDK and metaverse engine should create the process of fetching and rendering.

2. Metadata on IPFS (InterPlanetary File System): By saving the File itself on IPFS and saving the HASH to JSON like the following example:

```

{
  "contents": {
    "decentraland": "QmY8nVe2YE6N8kNUds2gFXwqESKP7rLcxyW4LAWbS5RkbH",
    "adaland": "QmY8nVe2YE6N8kNUds2gFXwqESKP7rLcxyW4LAWbS5RkbH"
  }
}

```

Figure 7. In this graphic: *NFT Metadata File hashed on JSON*

As seen in Figure 2, the JSON includes (Key/Value) in the contents; Key is the metaverse name, and Value is the Hash for the 3D file on the IPFS storage to be fetched in the metaverse. IPFS is used as a decentralized storage because it is a protocol and peer-to-peer network for storing and sharing data in a distributed file system. Both standards are based on the metaverse that will be targeted during the bridging process.

NFT Staking

Most NFTs and metaverse projects share part of their revenues with the community of NFT holders. These usually come from secondary market sales and royalty fees. As the NFT market grows, developers, artists, and collectors are exploring new use cases for their NFT collections. One of the latest cases is using NFTs as utility tokens in staking platforms. For example, in some gaming metaverses, NFT collectors can stake their NFTs to boost their game character's abilities and earn extra rewards. NFT staking refers to the locking up of NFTs on a platform or protocol to receive staking rewards and other privileges. This allows NFT holders to earn a passive income while maintaining ownership of their NFTs. Locking up NFTs on a platform can release rewards depending on the annual interest rate, the staking duration, and the number of NFTs staked.



STYLE NFT Staking

STYLE NFTs staking is a new opportunity for NFTs owners to monetize their assets, potentially attracting more people to participate and driving up the market demand for stakeable NFTs. Staking an NFT on STYLE is like staking bitcoin (BTC) or ether (ETH). All that is needed is a cryptocurrency wallet with NFTs. The main purpose of staking NFTs on STYLE is to allow tailors to create derivative NFTs on another metaverse such as Bored Apes T-Shirt on Decentraland coming from original Bored Ape staked on STYLE. These newly created NFTs that are utilizable across other virtual worlds are essentially derivative NFTs of the initial asset.

Derivative NFTs

In the NFT use cases section, the STYLE protocol has shown how NFTs will look on the protocol and the main asset for each metaverse will be saved on decentralized storage such as IPFS. Through an API, any metaverse can fetch NFTs as Digital Assets to be used there by owners. No derivative can be used or generated unless the owner of the original NFT has staked their NFT for the whole period of creating the derivative NFT. From the ownership perspective, the final customer who bought a derivative NFT will be the main owner of that NFT, so that this person can sell or stake it based on the regulation of any metaverse. If the original NFT is sold, the new owner will receive royalties as income from the STYLE protocol. Original NFTs now on STYLE are generating passive income for the owner.

Architecture Design

Each blockchain is a different entity. STYLE Protocol builds on Polkadot, which creates a blockchain of blockchains. STYLE Protocol aims to be built on the top of Polkadot to increase the interoperability with all chains and make NFTs available in each chain. However, there are two steps to build the protocol to be flexible and usable for all chains. First, create the bridging logic using smart contracts on solidity and gain all Ethereum Virtual Machine (EVM) compatible chains such as Binance Smart Chain, Fantom, Polygon and Avalanche. Second, create the logic on a separated pallet (Parachain) on Polkadot to fit with all other chains. Also, from a usability point of view, the first step will allow users to pay through a metmask wallet easily. However, the second step will build the STYLE wallet to host most of the payments that will be done on Polkadot.

Smart Contract Architecture

There are three stakeholders interacting with the core smart contract: Owners, Tailors and Environment users. From the user/player and customer standpoint, owners are providers of NFTs or Digital Assets to be bridged to other chains or metaverses. Tailors are real modellists of new assets to be minted as NFTs on the targeted chain or metaverse. Lastly, the environments are marketplaces and gateways for the new NFTs to the games or metaverses.

Each stakeholder provides value and receives value. To conclude this section of the whitepaper, here is an overview of the smart contract's use cases:

- Owners stake NFTs (ERC721) and will receive a royalty on all revenue streams from this NFT
- Tailors can see staked NFTs as jobs to be converted to a 3D file
- Tailors submit an offer (bidding mechanism) for modeling metaverse versions of staked NFT
- The governance of the STYLE Protocol views the suggested 3D versions and can approve for the different metaverses and games
- Tailors create 3D files and submit them (Hashed IPFS)
- DAO governance once more evaluates 3D NFT quality and mints it as new NFT(s)



- Environments now fetch NFTs for their marketplace or point of sale.
- Customers (user/players) buy NFTs with in-game or in-metaverse currency. For example ERC20 (ex: USDC or other) tokens or ETH.
- After an automatic revenue share with the Environments, Tailors and Owners, the sales revenue flows into the protocols ecosystem.

Smart Contract: Flow of value

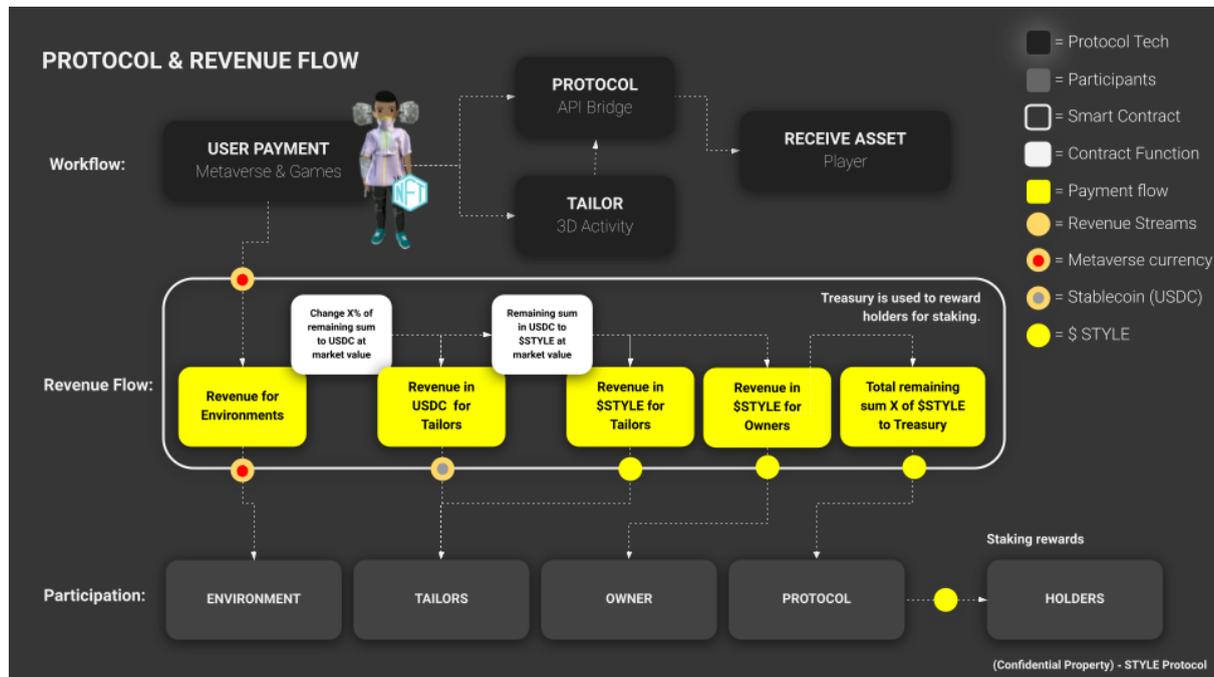


Figure 8. In this graphic: A summarized flow of protocol usage on the top, followed by smart contract and transaction flow in the middle. The participants and their revenue flow is listed at the bottom.

Non-EVM Architecture

The same logic as in the previous section will be built on different non-EVM chains such as Solana and Polkadot native parachain or EVM compatible pallets like moon beam and moon river. The Smart Contract will include the main feature of bridging funds and NFTs between chains in addition to cross chain payments including non-EVM chains.

The Team:

The STYLE Protocol's association consists of a global team of metaverse and web3 aficionados that aim to solve the problem of virtual asset interoperability across environments such as games and virtual worlds.

With diverse backgrounds from different industries, the team has assembled a large and experienced advisory board of (blockchain) serial entrepreneurs and industry experts.



Founding Participants

Leo Hilse - Web2 & Web3 Entrepreneur with experience in tech platform businesses, the fashion industry and crypto. Previously built a Fashion-NFT marketplace called „styleXchange“ (with some members of this team) also a supporter of a crypto family office in Germany and an active advisor to the Metaverse Fashion Council.

Hamza Salem - Experienced Blockchain engineer and professor for advanced blockchain development as well as blockchain scholar and influencer with a large developer following on Youtube.

Tim Segewitz - OG NFT Owner & Trader and crypto educator in the German blockchain ecosystem, now working on marketing the protocol to the right audience and connecting with games and metaverses.

Savish Uttam - 3D Expert and long-term game developer as well as virtual designer, guiding the connectivity with metaverses and games for a breathtaking transition of digital assets.

Gian Hammond - Creative Wizard with experience working for large fashion and luxury companies, lead community builder for creative participants of the protocol community and speaker.

Sheikh Sharjeel - Experienced Developer who has led teams of 15+ developers to create apps, platforms and beautiful online experiences for user/players and visitors, ensuring great usability of the protocol for participants.

Fatima Ezahra - Luxury and fashion expert with experience in the beauty industry from L'Oreal to Vichy, now making sure the right people for wearable NFTs and avatar partnerships are found.

Many more...
(10+)

Founding Advisory Board

Mario Zimmermann - Serial Entrepreneur with multiple successful tech exits around the globe, fundraising and company builder supporting with network and strategy.

Thomas Herbst - Serial blockchain Entrepreneur with multiple successful blockchain exits helping with protocol infrastructure and network in the European blockchain industry.

Thomas Müller - Serial blockchain Entrepreneur with multiple successful blockchain exits helping with blockchain architecture alongside hiring for top-tech talent.

Carsten Claus - Future Anthropologist with a track record of supporting concept and category shaping ventures that rethink markets and paradigms, and ensuring vision and goals align with socio-cultural developments.

Matthias Meyer Lutterloh - Serial Entrepreneur with ties in the fashion industry and experienced web3 and DAO company builder, supporting with culture and strategic development.

Many more...
(20+)

Additionally to the founding team and large advisory board, frequent angel investors and venture capital firms from around the world join STYLE Protocol in the mission to build the first cross-metaverse and cross-game interoperability virtual asset infrastructure.



Some investors and supporters are interested in staying behind the scenes, yet there are some publicly mentioned VCs and advisors on the more frequently updated team and support network page on the protocol's website: (<https://www.protocol.style/team>)

Final Information

Partnerships

To grow the STYLE Protocols' ecosystem, the team is striving to:

- Develop official partnerships with NFT-Collections and global brands
- Build use cases for communities to utilize assets according to the STYLE Protocol
- Enable using NFTs as avatars and skins in multiple metaverses
- Provide access to exclusive virtual wearables from partnering fashion brands

Partnerships are frequently announced on the STYLE Protocol's social media channels and made public on the website for anyone to follow up transparently.

Official Links

Website: <https://www.protocol.style>
Discord: <https://discord.com/invite/styleprotocol>
Twitter: <https://twitter.com/StyleProtocol>
LinkedIn: <https://www.linkedin.com/company/style-protocol/>