PlayingFields
Executive Summary

`playingfields.com`

Zenotta AG

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Introducing PlayingFields

PlayingFields by Zenotta is a universal in-game asset marketplace designed from the ground up to be secure, compliant, and scalable. As the first framework for data exchange of its kind, it will provide legal ownership and seamless value transfer for players, while enabling novel monetization strategies for game developers and studios. In addition, *PlayingFields* will build the first ever bridge between traditional financial markets and the gaming industry by unlocking in-game assets as a novel and attractive asset class.

Traditional payment and trade systems are inefficient and insecure because they rely on trusted third parties and intermediaries. Bitcoin provided a solution to these problems for payments, allowing individuals to send payments peer-to-peer over a fully distributed network using untrusted nodes. However, existing technologies have sought to make digital trade possible by building bridges between ledgers, providing bonded warehouses, or using escrow services. This has reintroduced trusted third parties and intermediaries and therefore the cost, risk, and reduced throughput of traditional payment systems.

Zenotta is uniquely positioned to make secure and scalable digital trade a reality. *PlayingFields* is built on the Zenotta Universal Digital Asset System, a modern and efficient layer 1 protocol that enables trade and legal ownership of any digital asset. With Zenotta's next-generation network based on proof-of-work and UTXO ledger technology, *PlayingFields* constitutes a new type of digital market wherein trade of digital assets will be possible over a fully distributed network utilizing untrusted nodes. Under this framework, users will for the first time be able to trade cryptocurrency for in-game assets, as well as assets directly for other assets.

For stakeholders in the gaming industry, *PlayingFields* will enable novel game mechanics, inter-game operability, and enhanced community engagement opportunities. The ability for users to demonstrate legal ownership of verifiably unique assets will provide an attractive platform for content creators and collectors. With novel opportunities for all stakeholders, *PlayingFields* is poised to become the global solution for a GDPR and financial regulatory compliant data exchange as well as an integral infrastructural component of blockchain gaming and the metaverse.

Zenotta is rapidly growing its list of partners in the gaming industry. Notably, Zenotta is now a member of the Blockchain Game Alliance (BGA), an organization that provides a collaborative framework for sharing knowledge, creating common standards, and establishing best practices for blockchain-based gaming. Zenotta is also partnering with experts in economics and finance in order to revolutionize how the gaming industry interacts with traditional financial markets. Zenotta is in the process of on-boarding Naavik, a research, consulting, and advisory firm for the gaming industry. Zenotta is also on-boarding SEBA Bank, a cryptocurrency-oriented bank which will facilitate the development of novel financial products around in-game assets.

Zenotta is excited to engage GSR as a market maker and liquidity provider in the gaming industry. This partnership would be the first of its kind in the gaming industry and would position GSR as the preferred market maker on the Zenotta network. By bridging traditional financial markets and the gaming industry, GSR stands to benefit significantly as a first-mover in this unprecedented market.

The development of *PlayingFields* is proceeding at a rapid pace. Details of the technical implementation and philosophy behind the Zenotta Digital System can be found in the accompanying Zenotta whitepaper, while a comprehensive look at the *PlayingFields* framework is available in the accompanying *PlayingFields* whitepaper.

Market analysis

As Zenotta's first public venture, *PlayingFields* aims to take advantage of the growth and potential market size of the gaming and metaverse industries. In the span of only a few decades, gaming has grown from a niche activity to a global industry worth more than $336 billion (Bitkraft & Naavik, 2021). More than 3 billion gamers worldwide play on every imaginable device, including mobile phones, consoles, and virtual reality systems (Wijman, 2021), participating in a seemingly infinite variety of virtual universes.

Modern gaming is increasingly taking place within persistent online universes. The social and competitive nature of these virtual universes has led to a thriving global market around in-game assets which include (but are not limited to) functional in-game items (e.g., armor, swords), aesthetic upgrades to existing in-game items (e.g., character and weapon skins), virtual real estate, tickets to live virtual events, access passes to virtual spaces, and virtual twins of branded items (e.g., official in-game Adidas sneakers).

The monetization paradigm for gaming is currently centered around in-game purchases (known as microtransactions) of in-game assets. In the United States, 19% of adult PC gamers in the purchase in-game assets on a daily basis, while 38% of console gamers purchase in-game assets at least once a week (Research and Markets, 2021). In terms of revenue from these in-game purchases, the global microtransaction market reached an estimated worth of $59.5 billion in 2021. In 2022, this market is expected to grow to $67.6 billion, constituting a compound annual growth rate (CAGR) of 13.6%. Longer term estimates expect to see growth at a CAGR of 11.9%, predicting a market size of $106 billion in 2026 (Research and Markets, 2021).

The future of the the gaming industry is promising as it continues to merge with two important technologies: blockchain and virtual reality. The former has changed the way in-game items are created and traded via non-fungible tokens (NFTs), while the latter is moving gaming from 2D screens into 3D persistent virtual universes known as metaverses.

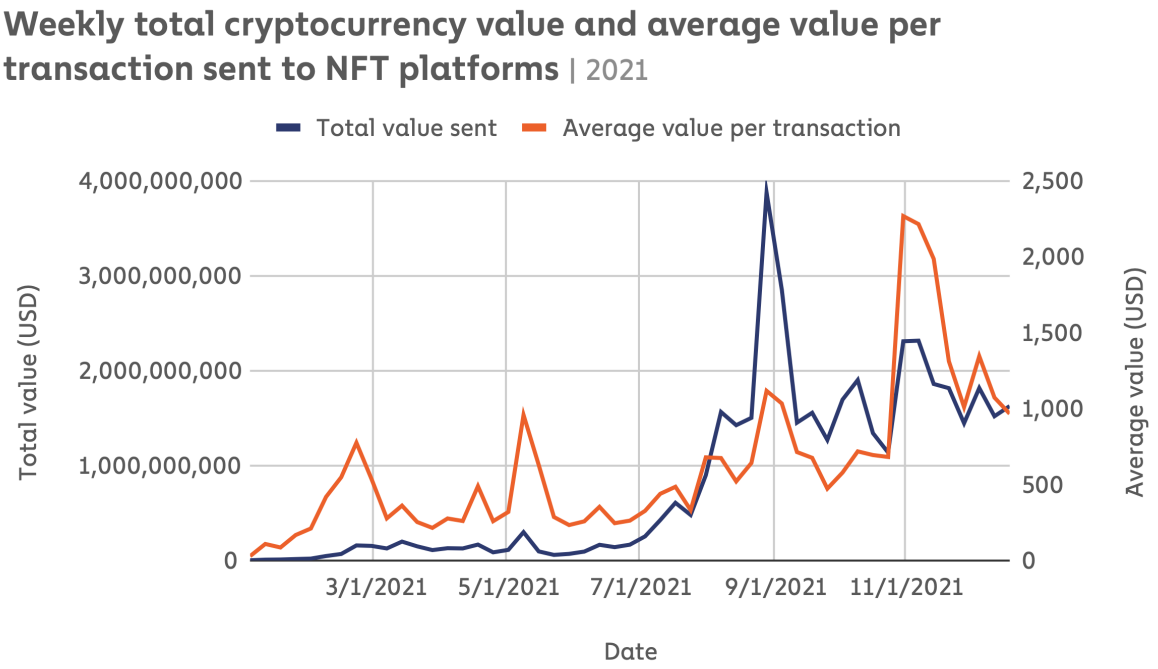

Figure 1: Figure courtesy of Chainalysis. NFTs as an asset category are gaining value as they attract new users (Chainalysis, 2022).

The metaverse gaming industry alone is expected to be worth $400 billion by 2024 (Bloomberg Intelligence, 2021), while NFTs (despite being a nascent technology) constitute a global market that surpassed $50 billion in 2021 and is expected to grow at a CAGR of 10.7% through the end of the decade (Emergen Research, 2022). At least $44.2 billion worth of cryptocurrency was sent to ERC-721 and ERC-1155 contracts in 2021, with Chainalysis noting significant increases in both total value sent and average transaction size (see Figure 1), suggesting that NFTs as an asset category are gaining value as they attract new users (Chainalysis, 2022). While much of this growth has been driven by digital art, the marriage of NFTs with the global gaming market is likely drive significant future growth.

However, despite the stellar growth of the NFT and gaming markets, there are several key factors which are expected to temper global NFT and in-game market growth in the near term. Key among these factors are concerns around legal ownership, fraud and scams, and a lack of standardization. The Zenotta Digital System addresses these issues and makes the trade of both fungible and non-fungible digital assets possible.

The Zenotta Digital System has been designed to allow for the trade of both fungible and non-fungible token types. A fungible payment-type coin (*the Zeno*) serves as a reserve currency for in-game currencies, while an asset-type token (*Smart Data Token*) handles trade of both fungible and non-fungible in-game assets, through two token types: type I

(on-chain) and type II (hybrid on/off-chain). Both type I and type II can handle fungible and non-fungible tokens/assets. Trade proceeds through a new, two-way ledger for digital payments and assets known as a *dual double entry* ledger, which tracks both the payment and the asset natively on the blockchain, allowing for atomic trade of coin-for-token or token-for-token in any combination using the blockchain layer 1 consensus mechanism. The coin/token types are briefly described below.

The Zeno (on-chain): The Zeno is the means of payment on the Zenotta network. It is defined as a blockchain-based currency, or coin, that is native to the layer 1 blockchain ledger. It functions as the medium of exchange for digital assets traded on the Zenotta network; namely, for digital goods and/or services. In the context of gaming, the Zeno also functions as a reserve currency for in-game currencies, with any in-game currency able to be traded for Zeno atomically through the layer 1 dual double entry ledger that functions, effectively, as a native blockchain-based over-the-counter (OTC) desk.

Smart Data token type I (on-chain): The Smart Data token type I, in its most basic form, provides a receipt that constitutes a countersigned acknowledgement that the payment was willingly and knowingly accepted, under the programmed terms of the transfer. It is defined as a blockchain-based token that is native to the layer 1 blockchain ledger and contains programmable logic that enables it to represent both in-game items and in-game currencies as entries on the ledger.

Smart Data token type II (hybrid on/off-chain): The Smart Data token type II consists of an on-chain component, defined as a blockchain-based smart data token that is native to the layer 1 blockchain ledger. Its programmable logic allows it, similar to the type I, to represent in-game items and in-game currencies. The type II has the additional ability to provide governance and ownership of an off-chain file via the on-chain token, referred to as a data rights signature (DRS).

With the Zeno and two distinct Smart Data types, *PlayingFields* unlocks a dynamic digital marketplace that offers new classes of digital trade. The opportunity for new forms of digital liquidity swaps is unique to the Zenotta Digital System and represents a novel and untapped market. We hope that GSR will take this opportunity to partner with Zenotta and become the first and preferred market maker in a thriving gaming industry.

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