

# BUILDING EQUITI

CREATING THE FIRST OPEN, UNIVERSAL SECONDARY  
MARKET FOR DIGITAL GAMING

The Equiti platform is a decentralized licensing and digital distribution platform for video games. Equiti creates more choice and new opportunities for consumers and developers of digital games.

v1.2

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## ELIMINATING RESTRICTIONS ON GAME DEVELOPERS, PUBLISHERS & USERS

**O**ver the past decade, digital technology has revolutionized the global video games industry. It's easier than ever for consumers to purchase and play games — whenever and wherever it is most convenient. But the move from physical to digital media has also restricted the rights of users, making it impossible for them to resell, trade, rent or give away the games they purchase. The digital games and media market as it currently operates also constrains developers, reducing sales longevity and limiting overall game exposure.

Equiti is changing the way the world handles digital media and digital rights management by restoring ownership rights to consumers and game developers. It accomplishes this using blockchain and token technologies to create the first open, universal secondary market for the global digital gaming community. Equiti uses the advanced capabilities of blockchain-distributed ledgers, tokens and self-executing code (smart contracts) to monitor purchases and licensing rights.

By employing blockchain technology, the Equiti platform enables secure and trustless transactions by creating immutable records in a distributed ledger. This eliminates the need for intermediaries and third-party validation to help manage transactions and to guarantee that all parties act in good faith. This approach also ensures authentic ownership of digital goods, and gives both consumers and developers more choice and control over their purchases and products. In addition, Equiti provides a quick and transparent method for developers to receive compensation for their creations, and fuels innovation by establishing new incentives for consumers to purchase and for developers to create outstanding digital games.

# A \$116 BILLION MARKET THAT CONTINUES TO EXPLODE

**T**here are currently 2.2 billion active gamers worldwide, and their passion is driving rapid growth in the global games market<sup>1</sup>, according to Newzoo, a market research firm specializing in the games, e-sports and mobile markets. In 2016, sales of video games worldwide generated \$104.8 billion.

In 2017, the overall global games market had grown to an estimated \$116 billion—a 10.7 percent increase over the previous year. To put this in perspective, the global box office revenue for the movie industry in 2017 was \$39.92 billion<sup>2</sup>. That's the highest-earning year in global movie history—and it's only just over a third of the global games market. What's more, Newzoo expects the current growth of the global games market to continue with a 2016-2020 CAGR of +8.2 percent, leading to revenues of \$143.5 billion by 2020 (Figure 1).

## 2016-2020 GLOBAL GAMES MARKET

FORECAST PER SEGMENT TOWARD 2020

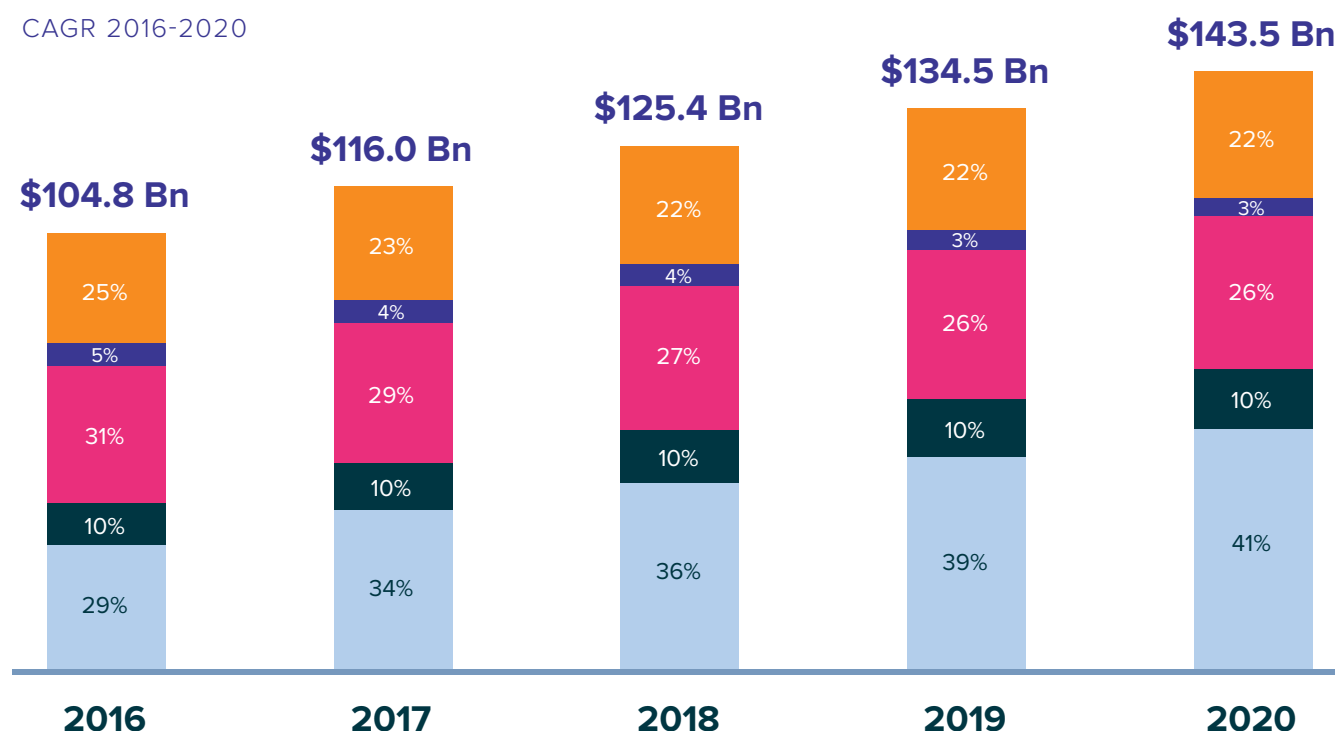


TOTAL MARKET

**+8.2%**

CAGR 2016-2020

● Boxed/Downloaded PC 
 ● Browser PC 
 ● Console 
 ● Tablet 
 ● Smartphone



<sup>1</sup> Global Games Market Report, Q4 Quarterly Update, Newzoo, November 2017

<sup>2</sup> comScore Reports Worldwide Box Office Hits a New All-Time Record, December 2017

# ACCELERATION OF DIGITAL ADOPTION & LOSS OF FAIR RIGHTS

**E**lectronic Arts (EA), a leading publisher of games and interactive entertainment software, recently reported that the growing trend of players moving from physical to digital games is accelerating — and market research confirms it.

The worldwide digital video games market grew 17 percent year-over-year in December 2017, according to SuperData, a market intelligence company founded by veteran games industry researchers. The Premium PC segment led the way with 28 percent growth while the Console market grew 15 percent year-over-year, and the mobile and free-to-play segments grew 27 percent and 3 percent respectively.<sup>3</sup> In October 2017, EA estimated that full-game downloads would represent 40 percent of console game sales by the end of the year.<sup>4</sup>

According to the NDP Group, 69 percent of all video games were still in some kind of physical format in 2010, and only 31 percent were digital. Six years later, the growing popularity of digital games was unmistakable. In 2016, only 26 percent of video games were still physical while 74 percent were digital.<sup>5</sup> Netscribes, Inc., a global market intelligence firm, predicts that the value of the global digital gaming market will grow to \$274 billion by 2022, up from \$93.89 billion in 2016.<sup>6</sup>

**“ The value of the global digital gaming market is expected to reach \$274 billion by 2022, up from \$93.89 billion in 2016. ”**

— Netscribes (January 2018)

Yet while digital gaming offers users greater convenience, it eliminates many of the fair-use rights users enjoyed with physical games and severely restricts their ability to sell, trade, give away or rent the games and other media they purchase. The Equiti platform establishes a secondary market for digital games and other virtual goods that restores user rights, creates new opportunities for developers, and enables simple, trustless gamer-to-gamer and gamer-to-developer transactions.

## CURRENT LANDSCAPE: LACK OF FLEXIBILITY CREATES CHALLENGES

When digital games first appeared, they seemed like a dream come true. Consumers could purchase and download a new game in minutes, start playing immediately, and even take the game along with them on their laptop. But that kind of convenience comes at a cost. Today, when you purchase a digital game, you don't actually own it and, in most cases, it can even be revoked or taken away without your consent. If you want to sell your game to help finance other game purchases, trade it for a different game, or give it to someone as a gift, you're out of luck. Such activities, which were commonplace when virtually all video games were on physical discs, are impossible with digital games.

Digital games are also a double-edged sword for developers. Although digital gaming offers the potential for developers to reach more people with their creations, distribution is controlled by just a few large companies and costs are high; developers typically pay 30 percent for distribution. And with thousands of games released every year, it is increasingly difficult for developers to elevate their games above the crowd and attract users.

<sup>3</sup> Worldwide digital games market: December 2017, SuperData, January 24, 2018.

<sup>5</sup> 2017 Essential Facts About the Computer and Video Game Industry, Entertainment Software Association, April 2017.  
Reference: [http://www.theesa.com/wp-content/uploads/2017/04/EF2017\\_FinalDigital.pdf](http://www.theesa.com/wp-content/uploads/2017/04/EF2017_FinalDigital.pdf)

<sup>4</sup> EA reckons 40% of console game sales will be downloads by the end of 2017, Eurogamer.net, October 5, 2017.

<sup>6</sup> Global Digital Games Market (2014-2022), Netscribes, Inc., January 28, 2018.  
Reference: <https://www.businesswire.com/news/home/20180124005504/en/Global-Digital-Games-Market-Worth-USD-272.24>

# THE EQUITI PLATFORM FOR LICENSING & DISTRIBUTION

**T**he Equiti platform is a decentralized licensing and digital distribution platform for video games that provides a secondary market for the resale of digital games. Here's how it is addressing the current challenges:

CHALLENGE	EQUITI SOLUTION
<b>NO DIGITAL SECONDARY MARKET</b> <p>The lack of a secondary market for digital games and other virtual goods limits the rights of users and long-term sales for developers. It also constrains price elasticity and reduces overall game exposure.</p>	<b>UNIVERSAL DIGITAL SECONDARY MARKET</b> <p>Equiti provides the first open, universal digital secondary market, which restores and protects the rights of users and assists developers in increasing the sales longevity, reach and exposure of their games.</p>
<b>LACK OF OWNERSHIP FOR USERS</b> <p>In the digital world users are forced to surrender their fair-use rights in exchange for increased convenience.</p>	<b>EMPOWERS USERS WITH FAIR-USE RIGHTS</b> <p>Equiti gives users back their rights in the areas they care about most — rights they lost when they moved from physical to digital games. On the Equiti platform users can sell their digital games, lend them to friends, give them away, or even rent them out. Equiti effectively preserves the fair-use rights we've all come to expect when we buy games or other media.</p>
<b>CONFLICTING INTERESTS FOR DISTRIBUTORS</b> <p>Current leading distribution platforms are owned by game publishers. Game and media developers and designers do not have independent channels for distributing their games or other media creations.</p>	<b>INDEPENDENT AND DECENTRALIZED BY DESIGN</b> <p>The Equiti platform is decentralized and independent of any game developer or publisher.</p>
<b>LACK OF VISIBILITY AND EXPOSURE</b> <p>With so much content being published every day, it's difficult to separate a true gem from the average or below-average games that are flooding the market.</p>	<b>SECONDARY MARKETS INCREASE EXPOSURE</b> <p>Equiti is creating a secondary market that will empower all game owners to become marketers and resellers, which will in turn benefit game developers. This system creates incentives for everyone who owns a game or other media creation to share and talk about it. The Equiti platform will also focus on curation of games and media, so that quality games will get the exposure they deserve.</p>
<b>HIGH DISTRIBUTION COSTS</b> <p>The industry standard is a 70/30 split between developers and distributors. Developers pay 30 percent to have their games on most distribution platforms such as Steam and GOG.</p>	<b>KEEPS COSTS LOW</b> <p>At Equiti, we believe that taking almost a third of revenue from the creator of a game is unfair. Using blockchain technology, distribution will be more cost effective and will allow creators to receive more revenue from each game sold.</p>
<b>PAYMENT CHALLENGES</b> <p>One of the biggest problems with online payments is the fragmented landscape. There are hundreds of payment services, and each of them applies to their own geographical region. While this causes no problem for businesses that only operate within those specific regions, it can create significant obstacles for game developers, who usually cater to a global audience.</p>	<b>BLOCKCHAIN PAYMENTS ARE IMMEDIATE, LOW-COST AND GLOBAL</b> <p>Blockchain removes intermediaries and brokers, providing developers with a means to be directly compensated for the use of their game. Instead of waiting for revenue to be doled out, a platform based on smart contracts can provide a mechanism where players immediately send funds directly to a developer's wallet. Unlike other payment services, blockchain payments are borderless (not based on region) and the token means a common single currency for exchange no matter where in the world users and developers are located.</p>

## OUR VISION: EMPOWERING THE B2C RELATIONSHIP IN GAMING

**A**t Equiti, our vision is to liberate digital content and eliminate the restrictions placed on consumers and developers by creating the world's first open, universal secondary market for digital games and media.

The Equiti platform changes the way people interact with digital games and other media by empowering creators and consumers to connect directly — in a secure, trustless and transparent way. Equiti's aim is to restore digital rights to consumers, create new opportunities and incentives for publishers and developers, and expand choice while fueling innovation and the evolution of digital content

Simply stated: We plan to revolutionize the way that digital games and media are bought, sold — and resold — worldwide.

## CREATING TRUE SCARCITY IN A DIGITAL WORLD

**A unique feature of the Equiti platform — and a boon for collectors and entrepreneurs worldwide — is that it gives users the ability to create true scarcity in a digital world.**

Traditionally, the nature of digital technology means that most digital goods can be endlessly duplicated. Using the Equiti platform, however, developers, modders and other entrepreneurs can control the number of licenses they issue for their creations, making it impossible to produce more licenses and ensuring that those creations remain rare. This promises to create even more new business opportunities by enabling a vibrant market for rare games and collectibles.

## UNIVERSAL LICENSING

True innovation doesn't come through building a closed system. We plan to change how digital games are bought, sold and resold by building a licensing platform that anyone can use — thereby enabling a truly open and decentralized experience that will create new opportunities for gamers, developers and publishers alike. In addition, the foundation that Equiti creates will allow others to build new and innovative tools on top of the platform, as the key functions controlling how licenses are verified, bought, sold, and transferred will already be in place.

By making our blockchain technology available to everyone, and providing an easy-to-use API, we will make it simple for third parties to integrate safely and securely with the Equiti platform and build other platforms or marketplaces that interact directly with our smart contracts and licenses. In doing so, we will advance — and revolutionize — the entire global digital gaming industry.

# EQUITI: AN OPEN PLATFORM WITH THIRD-PARTY ACCESS

**W**e believe that the next generation of game licensing must no longer be a closed system where one central authority controls everything. Instead, we believe it is essential for the system to be open and universally usable by all gamers, developers, publishers, marketplaces and platforms. In addition to the website, mobile app and desktop client that Equiti provides for users, the platform is designed to encourage others to build on top of it.

## OPENING UP A WORLD OF POSSIBILITIES

Along with revolutionizing the digital gaming industry, we believe the use of Equiti as an open platform will have a profound impact on the gaming community as a whole. In much the same way the introduction of YouTube created a whole new industry of content creators, Equiti has the potential to spark exciting new business and income opportunities. Truly, the possibilities are endless.

By sharing our application programming interfaces (APIs), third parties will be able to harness the power of the Equiti platform to bring new ideas to life. This will enable and inspire people to create new game-related businesses or income streams—allowing them to increase revenue or earn a living from gaming in ways that were not possible previously.

**Here are some examples:**

### GAME DEVELOPER/PUBLISHER

If a developer or publisher wants to sell and resell games directly from their website without worrying about the distribution or payment process, no problem. All of that will be taken care of by the Equiti platform.

### MARKETPLACE/DIGITAL DISTRIBUTION PLATFORM

If a marketplace or digital distribution platform wants to allow resale of pre-owned digital games directly on their website or app, they will be able to maintain their brand and user interface.

### ONLINE GAME STORE

If an existing online games store wants to sell Equiti games and give their users access to the all pre-owned digital games for sale on the Equiti platform, they can do that.

### INDIVIDUAL/COMMUNITY SITE

If an enterprising gamer wants to create a niche mobile app or website to support a community built around a specific genre or type of games that their community is really passionate about, the Equiti platform makes it easy.

### MODDER

Modders (people who make modifications to a game to create a new experience) and others producing content for games can be rewarded for their work. They'll be able to sell their mods on the Equiti platform, with proceeds of the sale divided between the creator of the mod and the developer of the original game. Establishing a monetary reward for modders will encourage more people to invest time in modifying games which, in turn, will encourage developers to make modding a priority feature for games in genres where that is popular.

**We believe that opening our platform for others to build on will provide endless opportunities for creative entrepreneurs and lead to even more innovative ways for people to buy, sell, resell and interact with games.**



## INFLUENCING THE INFLUENCERS

**W**ord of mouth has always been one of the most effective ways to create interest in a new product or service, and the widespread use of social media has made influencer marketing even more powerful. That's especially true for gaming, where gamers often count on referrals from people they know or admire — and trust — to help them find their next great gaming experience.

Despite a variety of refer-a-friend programs and other incentives and strategies, game developers and publishers often have trouble finding quality influencers to discuss and recommend their games. On the flip side, influencers are sometimes poorly compensated because ad revenue is often based on algorithms that may not properly measure and reward their influence.

The Equiti platform solves those problems. The platform will connect influencers and game developers/publishers in new ways, creating a more beneficial relationship for all parties. Influencers will be able to see which developers or publishers are offering incentives and capitalize on opportunities to talk about, review, or promote games they already find interesting or fun. This encourages higher quality content than traditional pay-for-exposure advertising. As a result influencers can not only earn more, but also make a more direct and meaningful contribution to a game's success. Finally, developers and publishers will be able to manage their influencers more effectively—and measure their influence to see how they affected a game's sales and exposure.

## USING BLOCKCHAIN FOR TRUST IN TRANSACTIONS

**Equiti is using blockchain and token technologies to create a secondary market for digital games and other virtual goods, which creates new opportunities for both consumers and developers and gives them more choice over their purchases and products.**

Blockchain technology — distributed ledgers with cryptographic security — simplifies transactions while providing transparency and autonomous management. Blockchains mitigate the need for intermediaries and a centralized authority because each participant has a copy of the stored data in a secure, shared database, and all changes are updated simultaneously across the network, providing an accurate and unchangeable record.

The blockchain helps to establish a high level of trust in both developer-to-consumer and consumer-to-consumer transactions by providing an immutable record that verifies authentic ownership of a license for a specific digital product — assuring buyers that the person selling or renting them a game actually owns the license.

Smart contracts verify and transfer the license and execute payment, virtually eliminating the risk. The transaction is “trustless” because the blockchain ensures that both sides always get what they are promised, without the risk of traditional online or in-person transactions.

## THE EQUITI TOKEN

**T**he Equiti token is a vital part of the platform and implements the ERC20 standard. Tokens trigger the execution of the smart contracts that make the transaction from developer to user (or from user to user) direct, immutable records of ownership. The Equiti token is designed to enhance the speed of payments — with all parties getting paid instantly — improving the overall usability of the platform. With this system, parties will no longer have to wait the 30+ days for payments that is typical in the industry.

By using the advanced capabilities of the blockchain and token technologies, the Equiti platform:



**Preserves ownership** – Provides users with an authentic and irrevocable license



**Streamlines licensing and payments** – Facilitates more seamless cross-border licensing and payments, connecting gamers to gamers and gamers to developers regardless of location



**Can help reduce fraud** – Transparently tracks license creation, transfers, and payments



**Enables trustless transactions and transfers** – Equiti smart contracts guarantee that the developer, seller, and anyone else involved in a license transfer gets paid



**Empowers developer and gamers** – Allows control to rest with the network of game developers and gamers, not with just a few large game distribution platforms



**Creates new revenue opportunities** – Increases the sales longevity, reach and exposure of developers' games and, as an open platform, enables people to build their own businesses and generate revenue in new and innovative ways

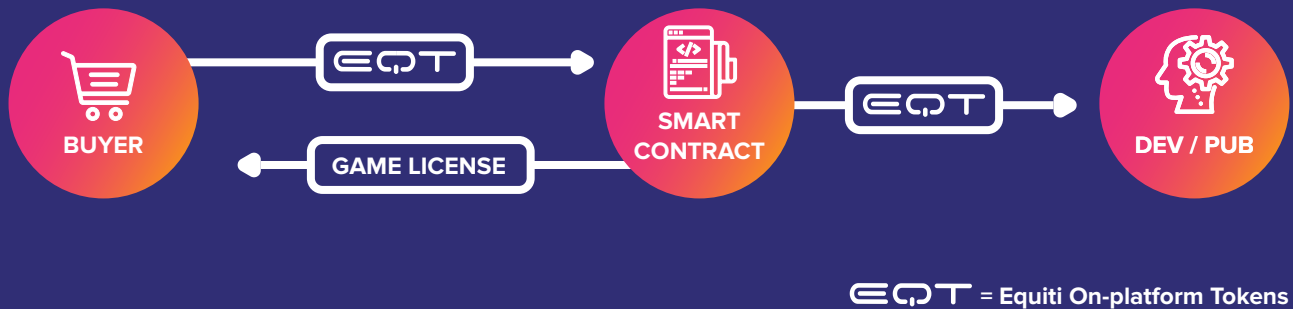


**Fuels game development and innovation** – Provides more incentives for consumers to purchase and for developers to create new digital games, and frees developers by allowing them to control how they distribute their games

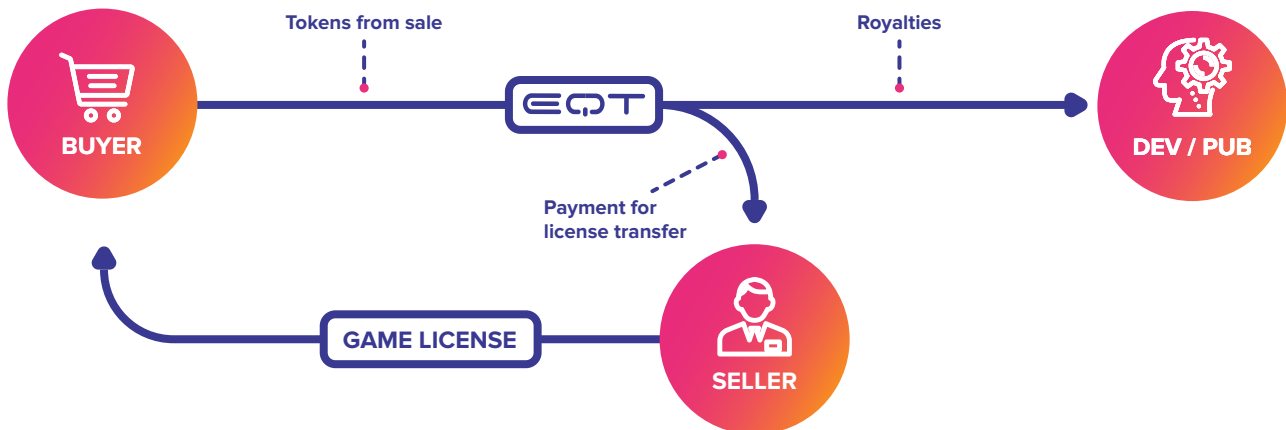
With all the advantages of using a blockchain-based licensing and payment solution, we recognize that, in the current market, working with tokens and crypto wallets can be confusing or intimidating to new users. To address the issue of education and adoption, Equiti is creating an interface that makes it easy for anyone to use Equiti tokens and the platform—while giving users more familiar with the technology full control over their wallets and tokens.

Using the default option of an Equiti-hosted wallet, users can seamlessly sign up and purchase a game without the learning curve of using crypto markets. We will introduce new users to a blockchain-based platform in a non-threatening way, and help them get comfortable with using cryptocurrency.

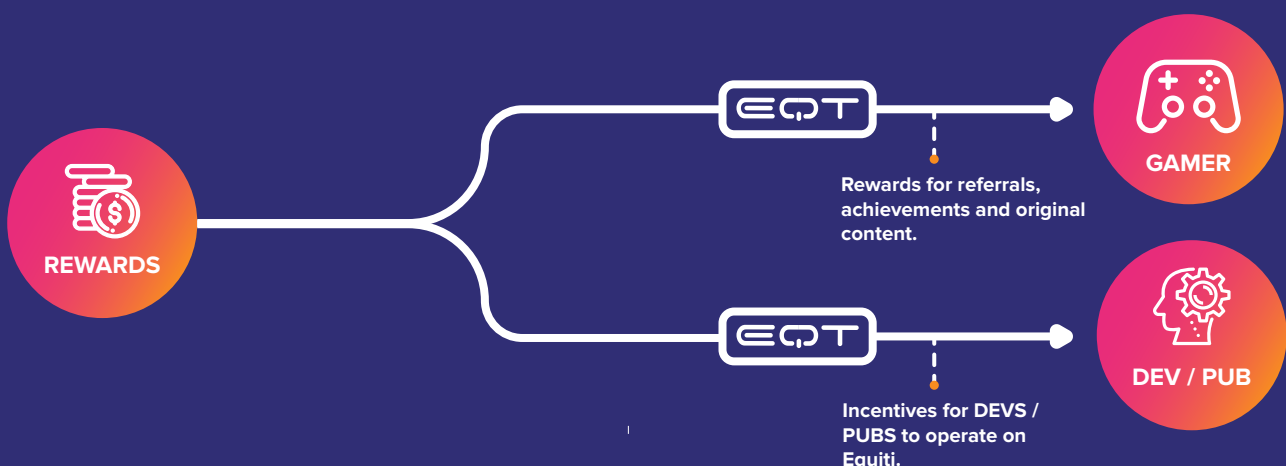
## BUYING A NEW GAME



## BUYING A PRE-OWNED GAME



## REWARDS POOL



## REWARD POOL

**W**e will establish a reward pool to provide incentives for both gamers and developers, which will encourage and reward good work and positive behavior on the Equiti platform.

Gamers will receive Equiti tokens as rewards for activities such as referring friends, reviewing and reselling games, providing feedback to developers, promoting the games they love, and creating useful content for the platform. On the other side, developers will receive incentives to encourage them to explore new and innovative ways of connecting and engaging with audiences using the platform.

Motivating and energizing both gamers and developers to get involved, especially early on in the deployment of Equiti, will provide a positive way to encourage interaction between gamers and developers, collect critical feedback on games and the platform itself, and help increase both the quality and quantity of games being sold and resold on the Equiti platform.

## GAME DEVELOPMENT FUND

In support of our vision of helping to create new opportunities for developers/publishers and fueling innovation in the industry, Equiti is creating a game development fund. The fund will be used to partner with established indie publishers to help them finance great games or subsidize funding for games that might be too risky for them to finance on their own. The goal is to help such games reach the next level — not to compete with independent publishers that are already doing great work in bringing exciting new games to the market. As part of our goal to advance the gaming industry, Equiti will also work to nurture the next generation of game creators by supporting university initiatives and giving grants to student developers.

## HOW THE EQUITI PLATFORM WORKS

The Equiti platform is an ecosystem of technologies and applications that work together to provide a seamless experience for the user across a variety of devices and interfaces. On the application side, there is a desktop game client that is used to install and play games, web/mobile applications for users to buy and sell games from anywhere, and a portal for game developers and publishers to manage their titles. The foundation of the platform is composed of smart contracts built on the Ethereum blockchain. From there, our Equiti Game Servers (EGS) interact with the smart contracts through the Equiti Authentication Service (EAS), providing additional functionality and exposing APIs that will be used both by Equiti clients and third-party applications or services that interact with the Equiti platform.

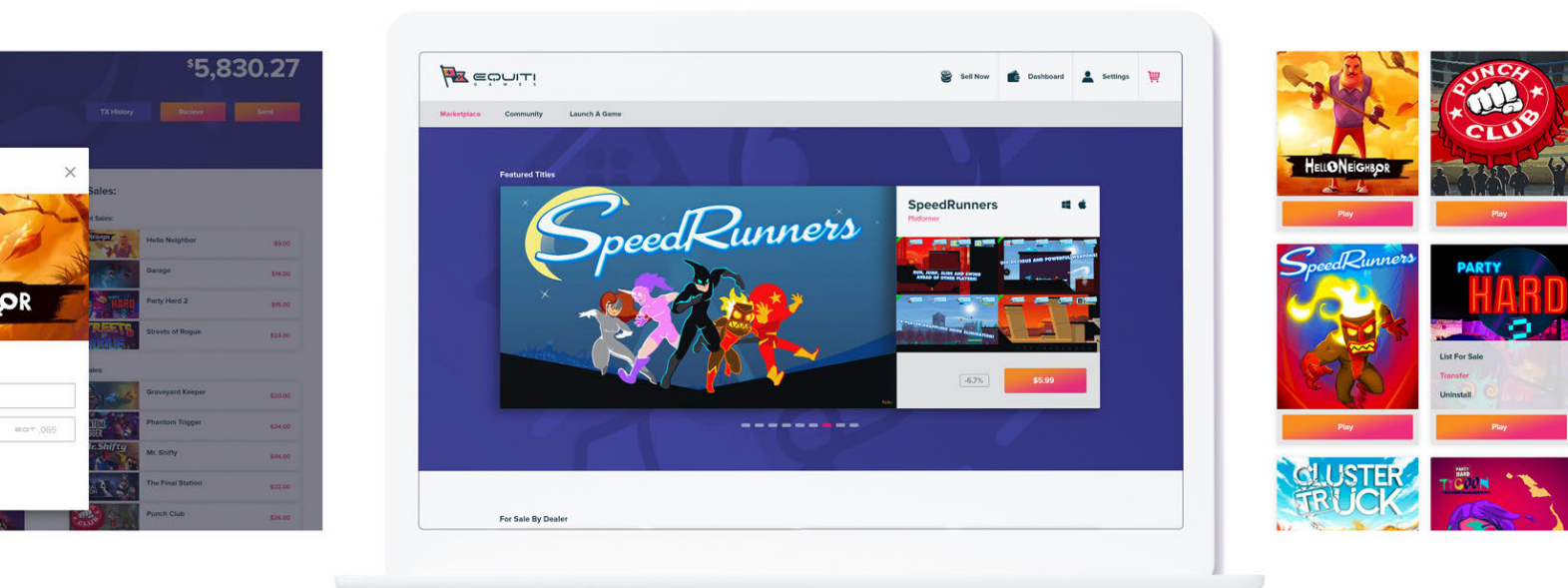
We chose the Ethereum blockchain as the core of the platform because it's the most mature and supported smart contract enabling blockchain. It's the de facto standard for robust smart contract development. No other blockchain currently has the level of developer support and documentation among existing smart contract projects. However, in the interest of providing the best experience for users of our platform, we will continue to evaluate our options as the blockchain space evolves.

## EQUITI GAME CLIENT DESKTOP APPLICATION

The main way that users will access the Equiti platform is through the Equiti Game Client Desktop Application. It will feature a well-designed, easy-to-use interface that provides access to all the features of the platform.

Through the application, users can easily manage (buy, sell, gift, or send), download and play their games. The desktop application provides seamless interaction with the Equiti Game Server (EGS), marketplace, and blockchain. In addition, it is the interface to the Decentralized Digital Right Management (DDRM) technology and licensing that Equiti provides.

Over time, gamers have grown to expect a certain standard feature set from most gaming clients — like being able to seamlessly update games, and connect and play with friends. With this in mind, the Equiti game client will have the social, community, store, and library features that gamers know and love.



## DEVELOPER/PUBLISHER PORTAL

**E**quiti will provide a portal that offers developers and publishers unprecedented control over how their games are published, bought, and sold. This portal will enable developers to do all of the usual functions — including uploading games, setting up game information and pricing, and accessing all kinds of reporting on how their games are being bought, sold, and played.

Some of the more unique features of our developer/publisher portal include the ability to create truly limited-edition or collectable games by putting a hard limit on the amount of copies that are created; and a set of controls that allow developers to determine the percentage they receive whenever a user sells their game pre-owned. These tools will be revolutionary for the digital gaming industry.

This portal provides a user experience and interface for the publishing of a video game title and license registry to the Equiti platform — and creating license contracts on the blockchain. These contracts allow for self-executing the delivery and accounting of online game licenses on the Equiti game marketplace. As this self-executing code automates some of the services that are traditionally provided by third-party publishing platforms, fees are reduced and redistributed to the producer of the game.

## USING THE EQUITI LICENSE PUBLISHER & DEVELOPER PORTAL

A developer will input ‘per-SKU’ game license information into the ‘License Launcher’ which is then encoded in an Equiti license Smart Contract (ELSC). This information will include key characteristics of the game licenses to be launched including:

- + General metadata and game information (name, price, etc.)
- + The quantity and type of game licenses (If there are limited editions, etc.)
- + The commission they set that they’ll receive when a gamer resells their game
- + The MSRP of each game license

# SMART CONTRACTS, LICENSES & BLOCKCHAIN AUTHENTICATION

## DECENTRALIZED DIGITAL RIGHTS MANAGEMENT (DDRM) PURPOSE:

When creating a DRM system for the Equiti platform, we're focusing on the necessary feature-set and functionality of Equiti License Smart Contract (ELSC), how they will interact (touch-points) throughout the platform, and ultimately how license-usage-rights will be transacted between Equiti users.

In order to maintain liquidity of licenses, decentralized access and ultimately platform viability, we deemed it prudent to combine a simple challenge-response authentication scheme with the native public/private key ECDSA cryptography that is built into every Ethereum wallet. Throughout this system all Equiti game licenses will be stored in immutable license registries inside of per-SKU smart contracts and verified off-chain by using the Equiti Authentication Server using public/private cryptography.

## DDRM/AUTHENTICATION & TECHNICAL ABSTRACT:

In the Equiti authentication process, the Equiti Authentication Service (EAS), will connect to the Ethereum blockchain (either by using an Ethereum daemon locally or a 3rd party service like Etherscan). The authentication service will watch and maintain a local list of "authorized" end-user Ethereum wallet addresses listed and updated within the Equiti License Smart Contract (ELSC).

The Ethereum addresses stored in the ELSC act as a registry of authorized users that are later verified in the challenge-response based authentication scheme described below.

## KEY ACRONYMS DEFINED:

**SKU:** Stock Keeping Unit, a common way to separate and serialize different unique products

**MSRP:** Manufacturer's Suggested Retail Price; the price of a license at initial launch

**ECDSA:** Elliptic Curve Digital Signature Algorithm, the type of pub/private key signature algorithm used on the Ethereum and Bitcoin blockchains (specifically secp256k1)



## EQUITI LICENSE SMART CONTRACT (ELSC)

**The Equiti License Smart Contract (ELSC) is Ethereum Blockchain based immutable code (or Smart Contract) that, once published live, will act as a governing conduit for:**

- + Ownership of each unique ELSC (or, 'license', 'game', 'key')
- + Payment of Fees, royalties and publishing commissions
- + Assigning permanent distributed ledger record of ownerships

### MANAGEMENT OF EQUITI LICENSE SMART CONTRACT (ELSC):

**The owner/developer of a game license smart contract can perform administrative tasks to the licenses. Including:**

- + Creating more licenses (\*\*if explicitly defined at launch and a limited supply/mint\*\*)
- + Re-assigning commission prices and beneficiaries

### END USER/CONSUMER EQUITI LICENSE SMART CONTRACT (ELSC) FUNCTIONALITY:

**The end user/owner of license(s) can use the ELSC to trustlessly:**

- |   |   |
|---|---|
| + Offer for reSale  | + Transfer (or send/gift)                           |
| + Purchase (newly from a developer/publisher or as resale from peer user) | + Authenticate/verify on chain for playing of games |

In keeping with Equiti's goal of being universal, open and flexible, we have created an implementation that allows marketplaces to sell licenses both individually and in large quantities all at once if desired.

At a high level, the ELSC keeps the promises and functionality of the ERC-721 standard while extending the functionality to facilitate the production scale transfer of licenses (by limiting the Ethereum gas cost; a cost associated with recording information on the Ethereum blockchain). This becomes exceptionally valuable and necessary in the case of limited supply license releases.

In the simplest context, the ELSC facilitates the sale of game licenses in denominations of Equiti tokens (ETH and USD), according to an agreed upon immutably encoded (see Smart Contract) commission sale contract. These agreements can be set on a per license basis and are enforced by the ELSC, not any trusted party. The commission sale contract defines the percentages that each party receives of the purchase price, as well as defining the purchase price itself.



## DIAGRAM 2: DATA SIGNATURE OF LICENSES

```
struct licenseProperty {
    address owner;
    uint commissionPerTransfer;
    address commissionReceiver;
    uint forSalePrice;
}

// the licenses
mapping (uint => licenseProperty) public licenses;
```

This snippet describes the immutable properties of a fungible game license that will be contained in a per SKU ELSC on the Ethereum blockchain. We can see here, the configurable variables of an Equiti license (ELSC):

- + **Owner** – Ethereum wallet identity of the license holder
- + **CommissionPerTransfer** – Commission the (re)seller receives for coordinating the sale (if any) **in Wei**
- + **CommissionReceiver** – Ethereum wallet address of the commission beneficiary
- + **For-Sale-Price** – Price of the license **in Wei**

As well as the independent relationship between an abstract number (static or dynamic) of licenses and their ability to inherit independent traits:

- + **Mapping (uint => licenseProperty) public licenses**

## DECENTRALIZED DRM

The Equiti Decentralized Digital Rights Management (DDRM) authenticates the rights to play and transfer game licenses using smart contracts and key signatures. The important distinction of DDRM is that no one owns the code that performs the assignment of ownership in the Equiti ecosystem. That code is contained in the smart contracts on the blockchain that assign and verify ownership of the game license. The process is decentralized.

However, when a user goes to play a game, the entire process needs to be protected from the time a user clicks a button to play the game on their device until their license is fully verified on the blockchain and the game starts up. Equiti uses Custom Executable Generation (CEG) to encrypt the game files that reside on the user's device, requiring a call to the Equiti Authentication Service (EAS) to verify the user has ownership of that game.

For the game developer, enabling CEG on their games will be a seamless process that's done when they upload their game files while publishing a game on the Equiti platform. This makes it easy for them to offer a protected version of their game without causing any undue hardship for the people who want to play it.

# EQUITI GAME SERVER VERIFICATION SCHEME

## SECTION DEFINITIONS:

**Equiti Game Server (EGS):** Game servers hosted by Equiti (or a third party) using Equiti's SDK that coordinate the login, authentication of ownership and playing (running files) of a game. This is, essentially, a traditional game server that uses the Equiti Authentication Services (EAS) (either locally or remotely) to establish authentication.

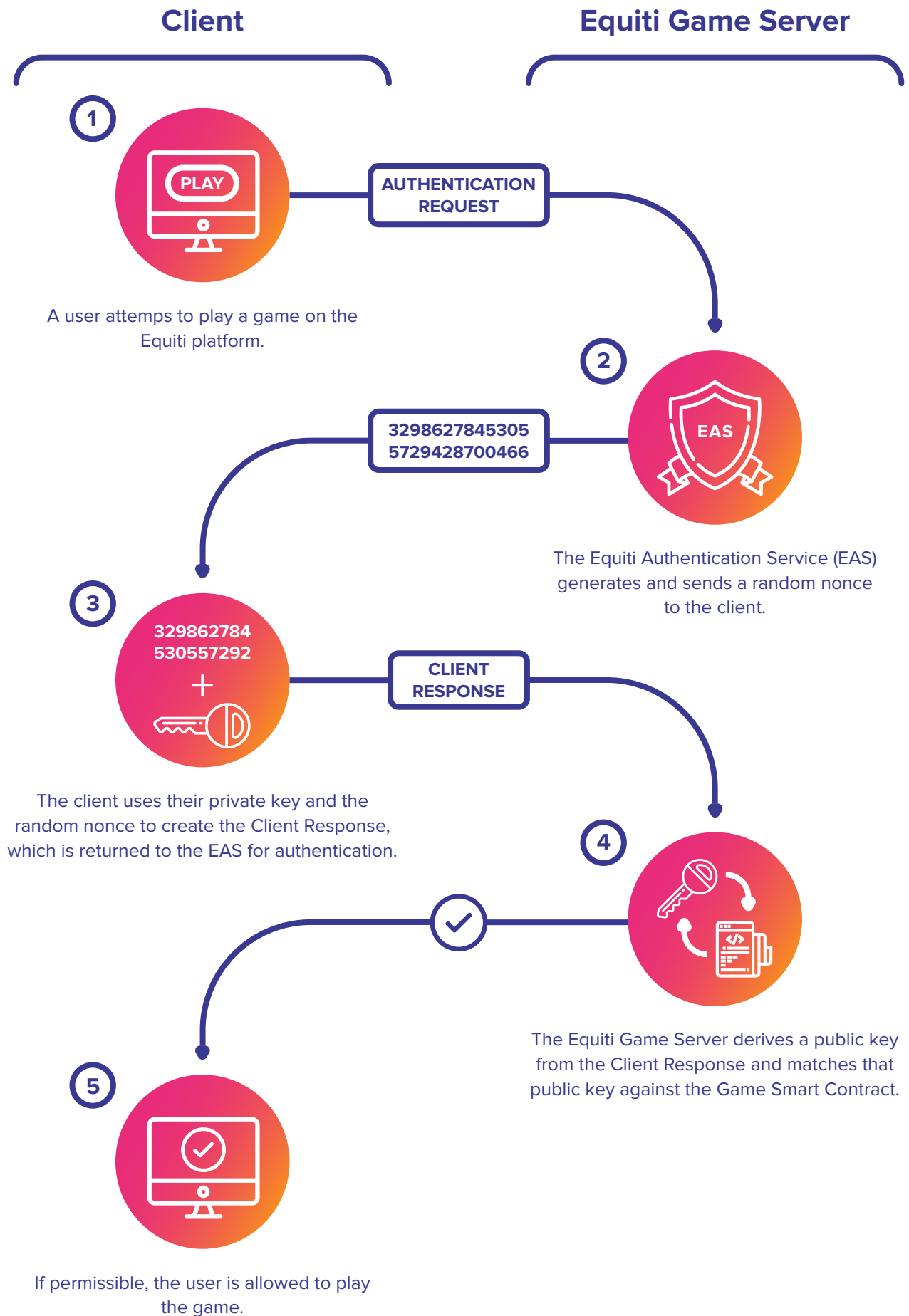
**Equiti Authentication Service (EAS):** Service that has the sole authority to authenticate users to enter and interact with EGS. This server is responsible for generating and sending 'challenge nonces' to the client/end-user over HTTPS as well as monitoring the ELSC on the Ethereum blockchain.

**Cryptographic nonce/challenge nonce:** An arbitrary number or random value that can be used only once. Issued by an authentication protocol to ensure that old communications cannot be used in replay attacks.

**Server Response (SR):** Random challenge nonce value generated by the Equiti Game Server (EGS).

**Client Response (CR):** Cryptographically signed message of the SC.

## DIAGRAM 3: EQUITI AUTHENTICATION SERVICE EAS



## EQUITI WALLETS

**A**s with every blockchain platform, the management of wallet key-pairs (public and private keys) highlights the dichotomy between user experience and freedom. Thus, in order to create a platform where users retain the ownership of their licenses (games) and experience them with ease, we have to carefully balance how this entire ecosystem operates.

Equiti allows for both new and experienced users to prioritize their convenience versus control/security by providing two different wallet options. Equiti provides users with a hosted wallet that's easy for them to access and use; and an advanced option where users can use their own wallet on the Equiti platform.

We are also creating a hybrid system for wallet management comprised of a “walled garden” web wallet with the added ability for advanced users to take their wallet off of the platform and use their own wallets.

Equiti is taking on the responsibility of managing hosted wallets for both ease of use—giving new users a simple way to get started—and ease of recovery—enabling Equiti to assist people who misplace their private keys and cannot access their games. Overall, this will help ensure a stronger user experience and make the platform more accessible to a larger pool of users.

(See also **Diagram 3: Equiti Authentication Service [EAS]**)

## USE CASES

Lack of an open secondary market for digital games has imposed frustrating restrictions on gamers and developers alike. Developers face limited distribution options and high distribution costs for the digital games they create, among other challenges. In addition, gamers are unable to resell or give away the digital games they purchase.

Here are two examples of how users interact with the Equiti platform, solving some of those problems:

### A USER BUYING AND SELLING A GAME ON THE EQUITI PLATFORM

A gamer creates a user account on the Equiti platform, and searches for a game they want. When they buy it, 90 percent of the retail price goes to the game developer/publisher. They download and install the game on their PC using the Equiti client. They play until they beat the game, encourage their friends to play the game as well, and then list the game for sale on the Equiti platform so they can sell their copy to someone else.

When one of their friends buys their license to the game, the proceeds of the resale split between the seller and the game developer based on whatever commission the developer set in advance. (If the developer set a commission of 40 percent, then the person reselling the game would receive 60 percent of the proceeds and the developer would get 40 percent.)

Having sold the game, the original owner can no longer use it, and it's automatically uninstalled from their PC to save space. The new owner now holds a valid license, and they download, install, and play the game. The original owner takes the Equiti tokens earned from the resale, and uses them to buy another game.

### A GAME DEVELOPER/PUBLISHER LISTING A GAME FOR SALE ON THE EQUITI PLATFORM

After creating a developer/publisher account on the Equiti platform, they upload one of their games and become verified as the producer of that title. The developer/publisher sets the price of the game on the Equiti platform, and indicates whether the game is a limited/collector's edition with only a set number of licenses available. They can also choose the percentage of the proceeds they will receive from any game resales.

The developer/publisher then lists the game for sale on the Equiti platform, where users can search for and purchase it. The developer/publisher receives 90 percent of the proceeds for each new sale (compared to the 70 percent that's typical in the industry today). Whenever a user resells their game, the developer/publisher gets the percentage they have set in advance as their resale commission.

# ROADMAP & MILESTONES

The roadmap below shows the development path for the Equiti platform.



## THE EQUITI TEAM

### THE EQUITI TEAM

**S**uccessful development and implementation of the Equiti platform and token depends on the knowledge and hard work of many talented people — all dedicated to creating an open, universal digital secondary market that serves the interests of consumers and developers alike. Our team includes industry veterans with expertise in gaming, technology and financial services:



**TONY CAPUTO**  
CHIEF EXECUTIVE OFFICER

Tony is a seasoned entrepreneur who has launched multiple gaming marketplaces including Leaptrade.com, a p2p trading site that uses virtual currency to efficiently facilitate both physical and digital game exchanges. With over 12 years of experience creating enterprise web applications and seven years in the gaming space, Tony brings both technical expertise and a deep knowledge of game distribution, licensing, and marketplaces to the table.



**NICOLE ALLEN**  
DIRECTOR, DEVELOPER RELATIONS

Nicole has been a media insider for gaming and tech for nearly a decade, building a strong brand and following as Nixie Pixel — including 40 million+ video views, 330k+ subscribers, and 500k+ social reach. She has been everywhere and done everything in the industry — from VP of FTW Events and Logitech Executive Producer to Google TV Public Relations and Sales Director at ION Media Networks to Discovery Channel Partner and journalist at Escapist Magazine and GeekTyrant. At her core, Nicole is a passionate entrepreneur with her finger on the pulse of how communities receive ideas and what motivates both gamers and developers.



**JOHN LEMA**  
**DIRECTOR, TECHNOLOGY**

John has been an advising partner to Equiti Games since April 2018. His technology and sales resume is extensive, including Co-Founder and CEO of ScrollMotion which became the the largest provider of apps on iTunes and Google Play, being awarded a place on Crain's Fast 50. Additionally, he served as CTO & President of Convene, where he oversaw a realignment and drove a venture-backed Commercial Real Estate Technology serving over 70% of Fortune 500 companies. John has a strong record of building and inspiring high-performance teams to solve complex organizational challenges and go-to-market with emerging technological platforms.



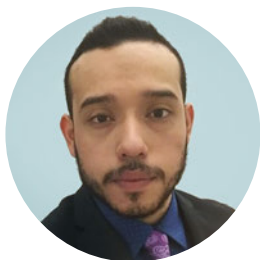
**JEFFREY VIER**  
**PRODUCT LEAD**

Jeffrey joined Equiti Games as Product Lead in October 2017. He comes to us from Ideas by Nature, the world's leading agency focused solely on the design and development of blockchain products, where he serves as Chief Operating Officer. Amidst work in a variety of industries, he has been passionately involved in Bitcoin and blockchain product development since 2014. In that time, Jeffrey has worked on some of the most innovative and prestigious projects in the blockchain space — including Salt, ShapeShift, Coinbase, and KeepKey.



**EDWARD CHERNICK**  
**DIRECTOR, SALES**

With over 14 years of experience working on Wall Street, Edward led the growth of electronic trading as the FinTech movement initiated and evolved. He guided several FinTech steering groups while at the New York Stock Exchange, in addition to consulting, developing, and deploying multi-asset enterprise scale technology solutions to trading institutions around the globe. Edward's passion for gaming led him to work on multiple video game marketplaces and ultimately brought him to the Equiti Platform.



**IVAN CACERES**  
**LEAD DEVELOPER**

Ivan has developed multiple gaming trading systems for both physical and digital games as well as in-game items. He is the full stack developer behind several popular startups and web applications, and he is familiar with all aspects of building and deploying secure restful/API driven, JWT authentication backed applications. Well-versed in numerous backend stacks and languages including Python, PHP, Elixir/Phoenix, Node, and Python (Django, Flask), Ivan is also an experienced frontend developer — having built applications with modern frameworks like Angular, React, VueJS, and Backbone.



## ADVISORS

We've been fortunate to work with a team of experienced and skilled advisors, including:



### JASON M. SCHULTZ

#### INTELLECTUAL PROPERTY AND DIGITAL RIGHTS ADVISOR

Jason M. Schultz is a Professor of Clinical Law, Director of NYU's Technology Law & Policy Clinic, Co-Director of the Engelberg Center on Innovation Law & Policy, and Area Lead in Law & Policy for the AI Now Institute. In 2016 he worked at the White House Office of Science and Technology Policy, where he served as Senior Advisor on Innovation and Intellectual Property to U.S. Chief Technology Officer Megan Smith. Jason is the co-author of *The End of Ownership: Personal Property in the Digital Economy*, which argues for retaining consumer property rights in a marketplace that increasingly threatens them. He also served as a Senior Staff Attorney at the Electronic Frontier Foundation (EFF), one of the leading digital rights groups in the world.



### LUKE BURTIS

#### MANAGING PARTNER AT TINYBUILD GAMES

Luke handles the business operations at tinyBuild, the indie game developer and publisher behind games such as Hello Neighbor, Clustertruck, Punch Club, Party Hard, and more. His role is essentially CFO and COO morphed into one—plus he's in charge of tinyBuild's conventions like PAX. Prior to tinyBuild, Luke was the managing director of Casual Connect for eight years. He is also the founder of Workshop-it, a learning tool for individuals interested in the gaming industry, and co-founder of HouseOgames, a one of a kind incubator for independent game developers. Luke currently lives and works in in Seattle.



### MARK JACKSON

#### TECHNICAL ADVISOR

With nearly 25 years working in the software industry, Mark has served as a software architect, engineer, consultant, and CEO. Most recently, he designed, prototyped and implemented Microtick's blockchain smart contract-based trading system for crowdsourcing and incentivizing untrusted data providers (oracles) to provide accurate data to the Ethereum ecosystem. Mark has a background in embedded Linux in secure, regulated environments.



### SHAUN DINDIAL

#### CAPITAL ADVISOR

Shaun provides a wealth of insight with over a decade of experience working in investment banking, private equity, and technology. He has spent the last three years advising and consulting companies in the crypto space. In his current role as General Partner at Crypto Global Capital, a \$100M Crypto Hedge Fund based in New York City, Shaun performs analysis on investments to identify top opportunities and works with some of the largest and most active crypto investors around the globe.



## PARTNERS



**IDEAS BY NATURE  
(DEVELOPMENT)**



**CBIZ MHM LLC (TAX)**



**COOLEY LLP**



**INTERNATIONAL GAME  
DEVELOPERS ASSOCIATION**



**NEW ALCHEMY  
(TOKEN ADVISOR)**



**CRYPTO GLOBAL  
CAPITAL**



**BITCOIN MARKETING  
TEAM**



**MORGAN HILL  
PARTNERS**

## CONCLUSION

**T**he rapid growth in digital gaming during the past few years is just the beginning. Everywhere, the demand for digital games is booming. In January 2018, Netscribes reported that the global digital games market is expected to have a compound annual growth rate (CAGR) of 18.98 percent over the next few years and to reach \$272.24 billion by 2022 — nearly three times its 2016 value of \$93.89 billion.<sup>7</sup>

Driving this phenomenal market growth is the expansion — and evolution — of the digital games community. In the United States alone, 67 percent of households own a device that they use to play video games, and 65 percent of households are home to at least one person who plays video games three or more hours per week.<sup>8</sup> As new technologies such as augmented reality, virtual reality, machine learning, and artificial intelligence become increasingly mainstream, the experiences they enable will continue to transform digital gaming and increase the demand for high-quality games.

Although people of all ages — from children to seniors — play and enjoy digital games in increasing numbers, the average gamer today is 35 years old (33 on average for men, 37 for women).

Millennials — the largest generation in history — grew up with video games, continue to play in record numbers, and have made gaming an extension of their friendships and family relationships. Yet today's gamers are breaking many of the old stereotypes.

According to the Entertainment Software Association (ESA), women age 18 and older represent a significantly greater portion of the regular game-playing population than boys under age 18. And unlike the early years of gaming when parents were often concerned about the time their children spent playing video games, today's parents have no objection to their kids becoming gamers. In fact, many parents encourage it. ESA reports that 71 percent of parents say video games have a positive influence on their child's life, and 67 percent play video games with their child at least once a week.<sup>9</sup>

**By creating the world's first open, universal secondary market for interactive digital media, Equiti is restoring true ownership rights and empowering both creators and consumers by revolutionizing the way that digital games and media are purchased, sold, and resold worldwide. As the demand for digital games continues to grow, the Equiti platform will drive innovation, create more choice and new opportunities for gamers and developers, and play a vital role in the future of digital gaming.**

<sup>7</sup> Global Digital Games Market (2014-2022), Netscribes, Inc., January 28, 2018.

Reference: <https://www.businesswire.com/news/home/20180124005504/en/Global-Digital-Games-Market-Worth-USD-272.24>

<sup>8</sup> 2017 Essential Facts About the Computer and Video Game Industry, Entertainment Software Association, April 2017.

Reference: [http://www.thesa.com/wp-content/uploads/2017/04/EF2017\\_FinalDigital.pdf](http://www.thesa.com/wp-content/uploads/2017/04/EF2017_FinalDigital.pdf)

<sup>9</sup> 2017 Essential Facts About the Computer and Video Game Industry, Entertainment Software Association, April 2017.

Reference: [http://www.thesa.com/wp-content/uploads/2017/04/EF2017\\_FinalDigital.pdf](http://www.thesa.com/wp-content/uploads/2017/04/EF2017_FinalDigital.pdf)



## ABOUT EQUITI

Equiti is a Delaware-based company that is committed to creating an open, universal secondary market for digital games and media that offers more choice and opportunity for consumers and developers, and serves the best interests of the global digital gaming community.

At Equiti, we are revolutionizing the way that digital games and media are bought, sold — and resold — worldwide.

<https://equiti.io>