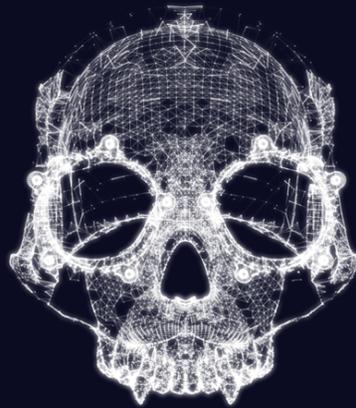


# The War Paper v1.3

September, 2019



*Vlad Kartashov, Eddie Penta, Jay Kim & Caroline Veillon*

<https://warriders.com>

## Table of Contents

<b>Abstract</b>	<b>4</b>
<b>Introduction</b>	<b>6</b>
<b>Market Overview</b>	<b>8</b>
Global Gaming Market	8
Blockchain Gaming Market	11
Blockchain Gaming Problems	12
Digital Goods Monetization	13
<b>War Riders Game</b>	<b>14</b>
Game Overview	14
Game Access	15
Car Modification and Ad Revenue	15
Garage Renting	16
Attack Mechanism	16
Merchandise Transfer to Other Users	17
Hybrid Chain	17
<b>The Marketplace Owned by its Users</b>	<b>19</b>
Background	19
War Riders Marketplace	21
Access to the Marketplace and Premium Features	22
<b>Vehicle Categories and Types</b>	<b>22</b>
Supply Overview	22
Vehicle Specs	24
Calculated Performance Parameters	24
Premium Vehicles	25
Mid-Grade Vehicles	34
Regular-grade vehicles	36
<b>Vehicle Customization and Preparation for the Apocalypse</b>	<b>37</b>
<b>Vehicle Pre-order Details</b>	<b>38</b>
Pre-Order Mechanics	39
Bulk buying	40
<b>Benzene Token Economics</b>	<b>40</b>
Token Quantity to be Released and the Economics	41
Game Pool and In-Game Mining	41

Deflationary Mechanism	42
BZN fill and asset movement flow	43
<b>Gun Types, Characteristics and Cases</b>	<b>44</b>
Main Weapons	45
Secondary Weapons	45
Weapon Cases	46
Supply Overview	47
Custom Barrels	48
Premium and Standard Weapons	48
Skins	56
Premium case	56
Mid-grade case	57
Regular case	58
Shooting Range Calculation	59
<b>Weapon Case Opening Details and Economics</b>	<b>60</b>
Case-Opening Mechanics	61
Bulk case opening:	62
<b>Additional Information</b>	<b>63</b>
Earn ETH and BZN by becoming a Virtual Vehicle/Gun Dealer	63
Marketplaces and exchanges support	63
Who can participate?	64
Refunds	64
<b>About Us</b>	<b>65</b>
Key team members	66
<b>References:</b>	<b>67</b>

## 1. Abstract

War Riders™ is a next generation, post-apocalyptic MMO strategy game of mining (collecting) cryptocurrency and blowing up cars. The game revolutionizes blockchain asset trading by introducing the first ever, in-game item marketplace truly owned by its users.

**War Riders is reimagining the nature of MMO gaming** by providing a platform where users rest assure their hard-earned loot crates and virtual gold/coins are safe. At the heart of this is Benzene (BZN) - the only form of payment left to trade in the Wasteland. Players discover BZN waypoints in the Wasteland and fill up their tanks with the valuable resource. In order to redeem BZN, the players have to bring what they've collected back to their garages without being shamelessly robbed on the way home. Benzene will be used to buy better guns, additional garage spaces, armor, nitro-boost, and it can also be exchanged for other virtual currencies.

**The purpose of the game is to become the most powerful army** in the Wasteland. Strong armies are able to provide protection to newbies for payment; this creates a steady revenue stream for the owner of the army. The more vehicles and garages you own, the stronger your position is in the game. The game starts when players assemble their very own post-apocalyptic vehicles and prepare for war. Every vehicle represents a unique, immutable piece of record on the public blockchain. Vehicles, guns and other assets may be traded between players using our native War Riders marketplace or any other marketplaces.

**The War Riders Marketplace** allows users to trade in-game items freely without transferring the item to the third party marketplace contract. It allows its users to swap all sorts of in-game items to make the experience even more fun!

**The game was developed by Cartified™** – a US software company founded in 2015 and headquartered in Washington DC. The purpose of this whitepaper is to provide a general overview of War Riders. This material is provided solely for educational purposes and may not be considered as an investment offer. Although War Riders will issue its own fungible token on the Ethereum blockchain, no ICO will be conducted and the tokens will be released during the in-game “human mining” process, thus ensuring a fair distribution. In other words, no BZN will be offered for sale.

**The early version of this paper is intentionally high level** and non-technical to prevent similar games from appearing before the official release of War Riders. The smart contract code will be open-sourced and publicly available for audit as we progress.



## 2. Introduction

Blockchain technology is a distributed ledger that may be used to record almost anything – including in-game items, skins, and other assets we have to offer. Blockchain is tamper-proof, immutable technology making it impossible for anyone to cheat the system. The newly introduced, non-fungible token standard on the Ethereum blockchain (ERC-721) allows the unique asset ownership to be recorded and safely transferred between individuals. ERC-721 is a token similar to Bitcoin and Ether with one major exception – it stores metadata. The NFT (non-fungible token) can neither be divided nor duplicated; this characteristic makes it an interesting instrument for various sorts of asset ownership.

For years, big-game publishers have been able to “print money” in virtual MMO gaming economies, and all in-game items and currency reside on their servers. Players spend hours earning precious in-game gold, only to come back a few weeks later discovering how much the gold depreciated since the last time they logged in. Due to inflation, the player now has to earn 10 times more gold to keep up.

Games that are free to play generate great amounts of revenue. According to SuperData, mobile games were the biggest revenue generator within the 2017 gaming market accounting for 55% of total market share, while PC games accounted for 30%. Both PC and mobile sectors were driven by “free-to-play” games, ultimately generating \$82 billion in revenue, demanding 89% of the market, and attracted 2.5 billion players.

For decades, it has been impossible to trade in-game items and currency outside of the game's native trading platform. These platforms usually demand a hefty commission and are regulated by central authority (the game publisher). For instance, Steam marketplace (owned by Valve corporation) charges a hefty 15% commission on all sales through its marketplace.

In addition, fraud is a very common event in the virtual goods market. This leads solely to profit-driven, segregated, and centralized trading platforms. Because of this, there is always a risk of complete platform shutdown, causing your hard-earned goods to immediately be worth nothing.

These unfortunate faults have disappointed players for years, but things are about to change. For the first time in history, we are creating a truly decentralized economy around the War Riders Marketplace - players will soon feel secure for their virtual worlds and all assets within. This blockchain technology presents a unique opportunity to exchange items between games and trade them freely within the decentralized marketplaces - ultimately avoiding the dreaded game publisher. Because of this, gamers worldwide are showing great interest and excitement in this new technology and all it entails. Big gaming companies have serious competition emerging; if they are unable to adapt, their market share will surely decline. This technology is what War Riders is being built on, and we couldn't be more excited.

### 3. Market Overview

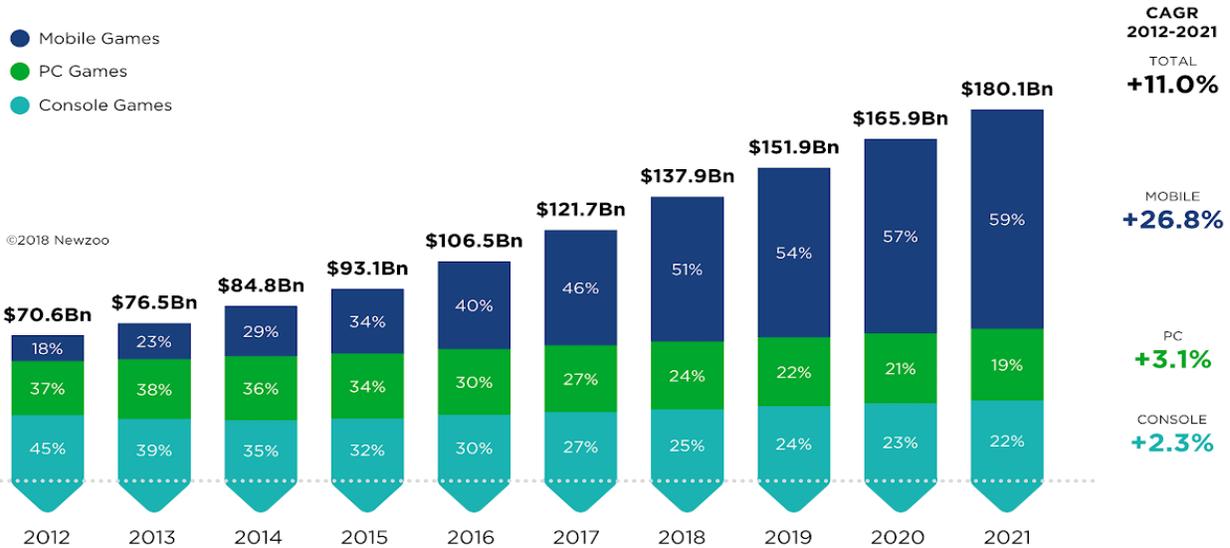
#### 3.1. Global Gaming Market

The video game industry is rapidly growing. According to Newzoo’s Global Games Market Report, 2.3 billion gamers across the globe will spend \$137.9 billion on games in 2018. This represents an increase of +13.3% from the year before, or \$16.2 billion. Newzoo is forecasting mobile gaming to be a 100-Billion-Dollar Market by 2021.



## 2012-2021 GLOBAL GAMES MARKET

REVENUES PER SEGMENT 2012-2021 WITH COMPOUND ANNUAL GROWTH RATES



Source: ©Newzoo | April 2018 Quarterly Update | Global Games Market Report  
[newzoo.com/globalgamesreport](http://newzoo.com/globalgamesreport)



Fig.1 Global Gaming Market Report (Source: Newzoo)

In a little less than 10 years, mobile gaming will have grown from the smallest segment in 2012 to a massive 100-billion-dollar industry by 2021. By then, smartphone and tablet games combined will generate 59% of revenue in the entire gaming market. Newzoo also reports that though the rise of mobile gaming is at an all time high, it has not significantly cannibalized revenues from PC or console gaming.

In 2011, a study released by Parks Associate indicated a surge in the global gaming population which greatly contributed to the rapid growth rate of the gaming industry overall. The number of U.S. consumers who play at least one hour of video games per month increased from 56 million in 2008 to 135 million in 2011 (Online gaming and digital distribution, Parks Associate). With hardware and network infrastructure becoming ever more accessible, Parks Associate expected a continuous growth of the gamer population base, and they couldn't be more right.

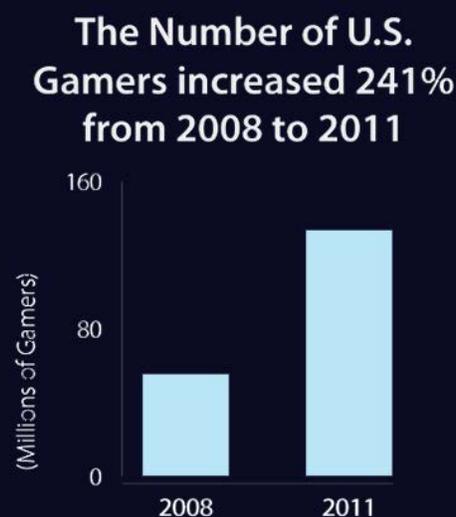


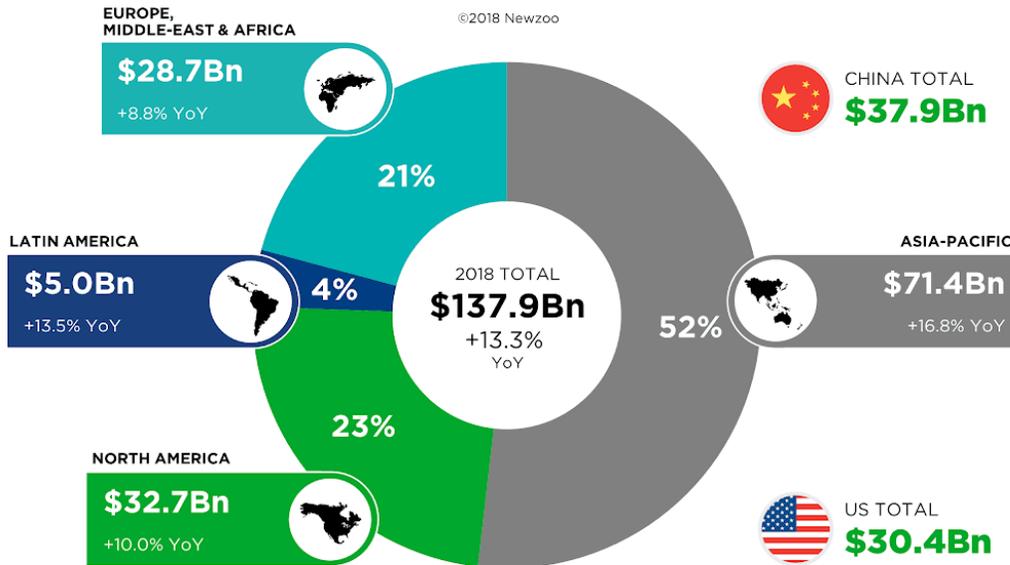
Fig.2 Parks Associates study in 2011 (Source: Parks Associates)

Globally, the Asian-Pacific market represents more than a half of the global gaming market. It is projected that the APAC territories will generate \$71.4 billion in 2018, or 52% of total game revenues. This represents a +17.0% year-on-year increase, nearly all of which is attributable to mobile.



## 2018 GLOBAL GAMES MARKET

PER REGION WITH YEAR-ON-YEAR GROWTH RATES



Source: ©Newzoo | April 2018 Quarterly Update | Global Games Market Report  
[newzoo.com/globalgamesreport](http://newzoo.com/globalgamesreport)



In 2018, almost **28%** of all consumer spend on games will come from China

newzoo

Fig.3 Global Gaming Per Region (Source: Newzoo)

The APAC territories are a primary driver of continued growth for the gaming industry. The number of smartphone users in emerging markets such as India and

Southeast Asia grows exponentially every year, and at the same time, the willingness to spend on mobile games grows in more established markets like China and Japan.

North America is the second-largest region with estimated revenues of \$32.7 billion in 2018, a year-on-year increase of +10.0%. Most of this growth will come from smartphone and console gaming.

### **3.2. Blockchain Gaming Market**

The blockchain gaming and tokenized in-game assets industry is still in early stages, but it is important to note the rapid growth. CryptoKitties was the first to introduce the non-fungible token at the end of 2017. CryptoKitties is a game of breeding virtual cats on the Ethereum blockchain that became so popular in December 2017 that it slowed down the network. At that time, CryptoKitties accounted for over 20% of all the Ethereum transactions.

CryptoKitties generated about 45,000 ETH (25 million USD, ETH=\$550) in sales and commissions as of April 2018. According to research performed at Cartified, from December 2017 to March 2018, the top 10 blockchain games generated approximately 200,000 ETH in revenue (110 million USD at the moment, ETH=\$550). This represents a monthly growth rate of roughly 44.83%.

Our studies show that the blockchain gaming market will grow by a at least 25% CMGR for next 12 months. As of June 2018, dappradar.com indicates more than 600 games are currently live on the Ethereum blockchain (<https://dappradar.com/dapps>). This does not account the thousands of games still

in research and development. We expect blockchain gaming applications, as well as those that use tokenized assets, to continue growing its total share in the global gaming market.

### **3.3. Blockchain Gaming Problems**

It is important to note that shortly after CryptoKitties was introduced, a handful amount of “copycats” (Purr) arrived to the market offering “crypto-collectible games” consistent of trading virtual images over various platforms. Many games that are currently deployed on the Ethereum blockchain fall under the collectible category. Most of these games have limited player actions, and while considered novel, a lot of players report them as boring.

Part of the difficulty in developing an interactive game entirely on the Ethereum platform (or other blockchain for that matter) is that every decision the user makes represents a unique transaction and demands a transaction fee (which can sometimes be as high as \$5-20 USD). Because of this, a game with a higher degree of freedom becomes more expensive to play; this is the main reason why most crypto games have been considered static in playstyle.

### **3.4. Digital Goods Monetization**

In september 2017, a South Korean gaming service provider, Nexon, bought out [KorBit](#) (valuing it at just over \$120 million) in order to integrate their in-game assets

with blockchain technology. (Techcrunch) Many digital assets that exist on traditional MMORPG are traded with cash, and game developers believe they can further secure the “realness” of these virtual assets by saving it onto a blockchain and allowing it to be traded. The spread of ERC721 represents a meaningful step forward in this direction. Cartified intends to be a leader in this area by creating a truly interactive game with tradeable in-game assets represented in ERC-721 and ERC-20 tokens.



## 4. War Riders Game

### 4.1. Game Overview

The goal of the game is to become the strongest and wealthiest army in the Wasteland. Players build their very own war vehicles using custom style parts and installing powerful weapons. In addition, every vehicle comes with a garage that may be customized and later upgraded. The vehicles “mine” the game’s native cryptocurrency called Benzene by driving through the Wasteland and discovering tokens. The tokens appear in random locations and have to be brought to the player’s garage in order to be redeemed. The Benzene token is used to purchase guns and ammunition, build additional garages, or simply upgrade the ones that already exist. BZN can also be used to purchase armor or nitro-boost and exchanged for other virtual currencies.

Players can choose to boobytrap or intercept other players and perform a shameless robbery. In this case, the offender’s guns will be fired and the victim must either surrender, hide in the nearby garage, or die on the battlefield (dying will result in losing all Benzene and a temporary freeze). While building an army, experienced players may rent out their garages to newbies seeking protection.

All vehicles and guns belong to the players and are not stored on the company’s servers. The items can be freely traded between the players using our built-in War Riders marketplace. Certain vehicles and guns are rare and will only be released as limited edition assets during challenges and campaigns. The Benzene

token has a deflationary mechanism meaning 30% of tokens from each transaction is burned every time a player makes a purchase from the War Riders store.

#### **4.2. Game Access**

Unlike traditional games, in order to play War Riders, players must purchase vehicles and weapons in order to participate in the game. Vehicles and weapons will be available at the War Riders store, and each player needs at least one vehicle to participate.

#### **4.3. Car Modification and Ad Revenue**

The customization of the vehicles in War Riders will happen in beautiful 3D right in your desktop or Ethereum-compatible mobile browser (such as Cipher). In fact, we expect our players to enjoy this process as a part of their preparation for the apocalypse.

The players will be able to customize the color, body parts, wheels, guns, install additional equipment and put the personal message (logo) of the vehicle. We expect other blockchain companies and beyond to advertise on the vehicles (as some expressed interest) which can bring an additional revenue stream for the gamers. Isn't it fun to blow up advertisers? :-)) All the garages in the game will be expandable and also have a personalized messaging attached.

#### **4.4. Garage Renting**

If the vehicle is under threat of attack, the player can choose to hide the vehicle in a nearby garage; however, the player's personal garage may not be in close proximity to the vehicle's current location. In this case, the player may choose to rent the closest garage that belongs to another user, but only if the garage has an empty spot and is offered for rent. Players who offer garages for rent are in complete control of the prices. The rent price can be fixed, adjusted dynamically, or operate according to a set schedule. Once the garage is rented out for a certain period of time, a smart contract will be executed between parties which simulates a real world rental contract. When this takes place, the owner of the garage may not cancel or revoke access to the garage until the rental contract expires. Players renting these spots may choose to come and go as often as they like during this time.

#### **4.5. Attack Mechanism**

In order for a vehicle to execute a successful attack on another, the attacker must be within its weapon's firing range. In addition, the gun must have the necessary power to take down the victim's vehicle, as the victim may be armored with a bulletproof body. The vehicle that is being attacked will have a chance to surrender, purchase a one-time shield or nitro-boost, fight and defend, or hide in a nearby garage. If the attack is successful, the offender takes all Benzene carried by its victim.

#### 4.6. Merchandise Transfer to Other Users

Each player can freely trade any vehicle/gun/garage asset with other players in the game using our built-in War Riders marketplace. Similar to games like CS GO, our game's central authority is replaced with a decentralized public blockchain. When the player knows the item is unique and immutable, the virtual asset may be transferred in and out of games without any restrictions. The distributed ledger also makes it possible for gamers to use their characters and items throughout multiple games with interlinked environments. This raises the functional value of those in-game items and provides us with a unique opportunity to create an entire ecosystem of different games without having to share a server or connect to a third party API provider.

#### 4.7. Hybrid Chain

In December 2017, CryptoKitties slowed down the Ethereum network because people were breeding virtual cats on the main Ethereum blockchain. The transactions were slow and expensive, and though it sounds silly, it upset many users. This occurrence pointed out very significant scalability issues within the Ethereum network. The Ethereum foundation is reportedly working on a potential scalability solution (such as considering shifting to the proof of stake).

A game that requires thousands of transaction per second is simply impossible and economically unviable to build using the current implementation.

Because of this, we have invested significant resources into testing the hybrid chain solution with a **dedicated game side chain**.

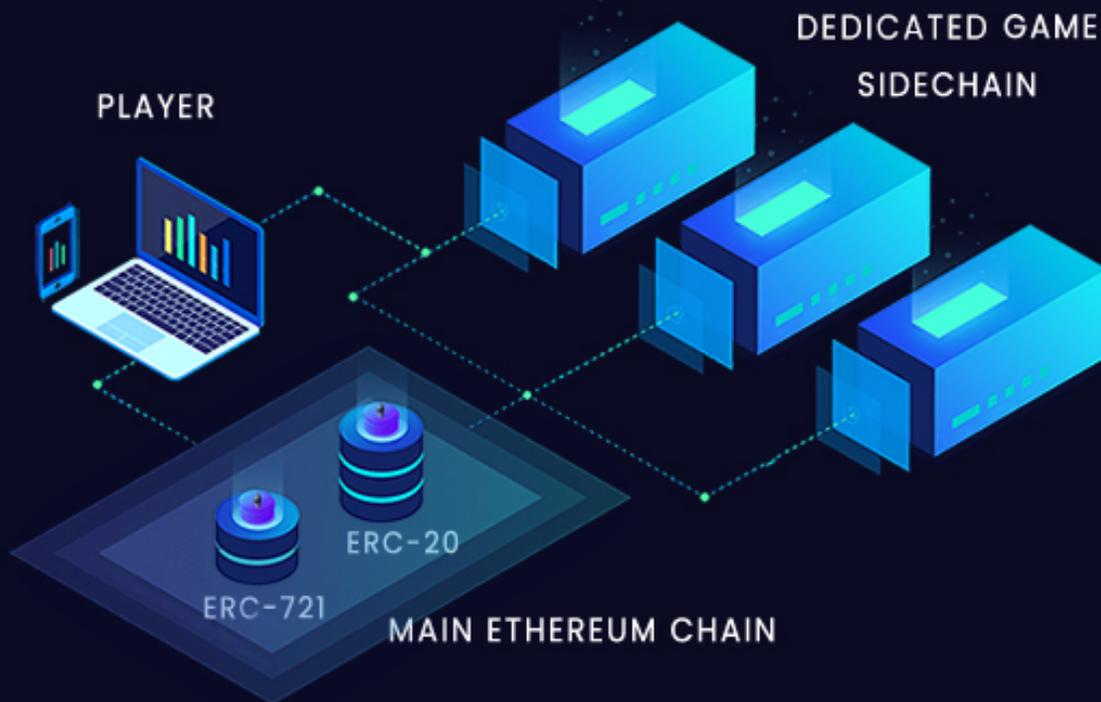


Fig.4 Hybrid chain

Players will be able to enjoy War Riders at significantly faster transactional speeds compared to the current implementation of the Ethereum network. All in-game items are enforced by the Ethereum mainnet for maximum security. Players «deposit» their in-game items and currency in the state channel in order to play the game. The items can be “withdrawn” to the mainnet at any point in time.

## 5. The Marketplace Owned by its Users

We are proud to introduce an innovative marketplace technology that allows our players to trade all the in-game assets in a trustless manner, without having to transfer the items to a third party marketplace. The War Riders marketplace was introduced by the CEO Vlad Kartashov at the Booz Allen Hamilton innovation center at the end of May 2018. You can watch the video here:



### 5.1. Background

Most of the marketplaces today are very centralized in their nature. Emerging crypto-asset marketplaces that utilize smart contract technology are forcing users to transfer crypto-assets (NFTs) to their marketplace contract in order to buy the in-game items for sale. This means assets are actually leaving the user's wallet. While

the item is listed for sale, the player cannot use it in the game, show it off to his/her friends, or offer it for sale concurrently someplace else. This limits the gamer’s freedom to use their in-game items simultaneously across different resources. In addition, there is currently no trustless way of swapping non-fungible tokens with users (like swapping a kitty for a car or vice versa). Such structure creates a single point of failure, like if the owner of the marketplace gets hacked, all items can potentially be stolen from the contract. According to the Coindesk’s Q4 2017 State of Blockchain report, the crypto community is very confident in decentralized exchanges:

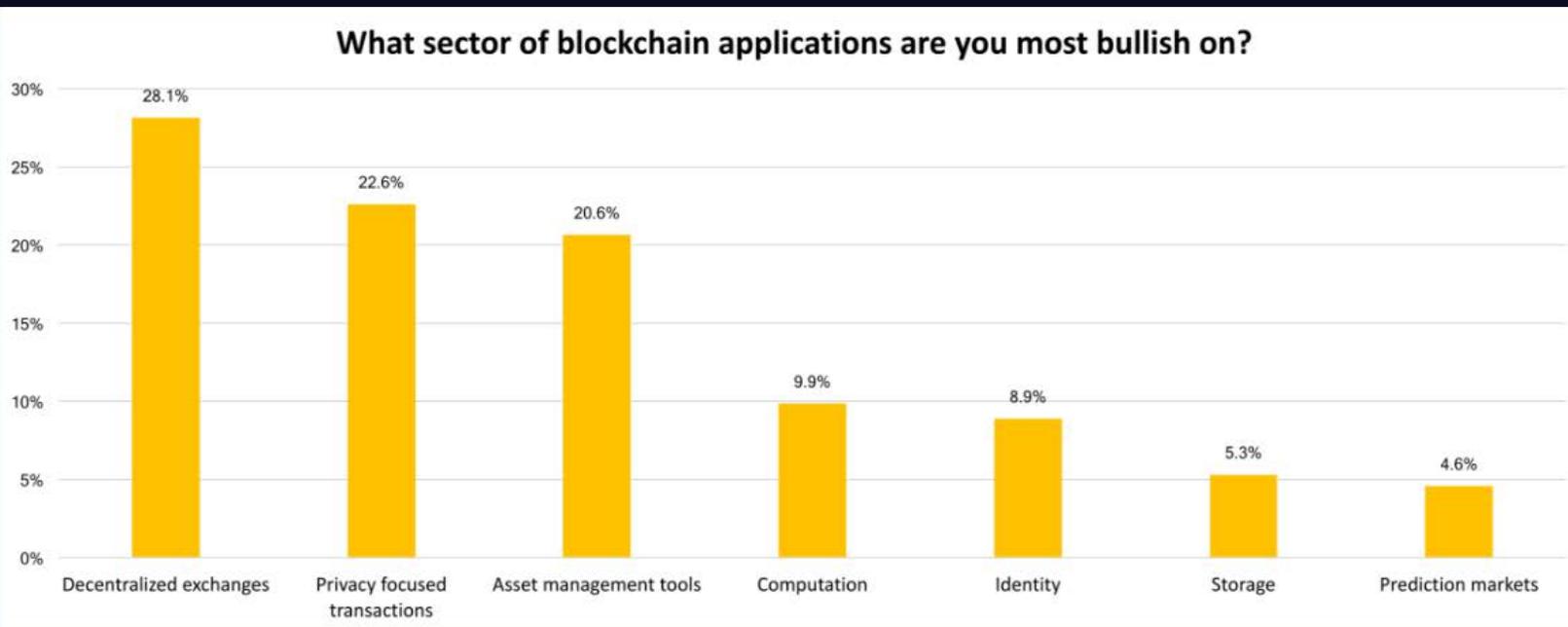


Fig.5 CoinDesk State of Blockchain report

We believe this trend is going to continue into the virtual asset trading space as consumers will ultimately be choosing decentralized exchanges over centralized.

Our marketing research concluded 85% of traders prefer a more decentralized way of trading non-fungible crypto assets. 91% of responders stated they would try a service that allows an ERC-721 swapping.

## 5.2. War Riders Marketplace

The War Riders Marketplace introduces a revolutionary smart contract technology that allows users to deploy a “mini-eBay” on the blockchain while offering all crypto-assets for trade in one place. The beauty of this technology is that your precious items never actually leave your wallet. In fact, you can still use your items while offering the items for sale. You only need to list the item once, and your very own “mini-eBay” will continue selling the item for as long as you want.

Our marketplace will also introduce **NFT swaps**. It allows users who own crypto-collectibles (ones they can't sell or trade) to trade it for a different in-game item **without paying Ether for it**. Players who are tired of playing a particular game can use the service to swap their items for another game's items. This will allow them to explore a new game **without exchanging Ether** (except for a network's transaction fee).

Marketplace users will receive offers from others which they may choose to accept or reject. All offers are happening off-chain; therefore, no gas is wasted for the “preliminary talks”. All trades are peer-to-peer or wallet-to-wallet, so buy, sell, or swap as much as you like - we won't judge.

### 5.3. Access to the Marketplace and Premium Features

The War Riders marketplace is natively integrated into the War Riders game. All non-fungible tokens (ERC-721) are automatically supported by the smart contract. Anyone can register for free and list all items for trade at our marketplace.

To unlock the premium features, you **will need to own at least one War Riders premium vehicle**. We believe that this will incentivise our early adopters and help the premium vehicles appreciate in value overtime.

## 6. Vehicle Categories and Types

### 6.1. Supply Overview

The game introduces a single ERC-721 vehicle smart contract. The total amount of vehicles caps at 1,180,000 - no more vehicles will **ever** be released in the game. Once all vehicles are sold, the only way to be acquired is by purchase from other users in the marketplace. There are 3 categories of vehicles:

1. Premium (30,000)
2. Mid-Grade (150,000)
3. Regular (1,000,000)

The sale of premium and special vehicles will start in the summer of 2018. Mid-grade vehicles are planned to be released during fall of 2019, while regular-grade vehicle sales will begin in 2020.

The release of vehicles is controlled by the Vehicle Factory smart contract. The Factory contract initiates the sale of each vehicle type with the lowest possible starting price - this price increases with every vehicle sold. This mechanism rewards early adapters and incentivises them to participate in pre-order campaigns as soon as possible.



## 6.2. Vehicle Specs

All vehicles come from the factory with specifications written in the digital “title” of the vehicle. At the time of purchase, each smart contract randomly picks a vehicle form whichever grade is selected; this creates an element of luck when the ride is purchased. For example: when buying the War Riders Lambo, one may receive a small BZN tank with loads of armor and the biggest engine possible, or you can get a lambo with a weaker engine, no armor, and a larger tank for storing BZN. Buying more vehicles will maximize chances of receiving top of-the-line vehicles. Every vehicles comes with the following set of specs:

- *Engine size*
- *Armor*
- *BZN tank*
- *Main gun slots*
- *Additional gun slots*
- *Additional equipment slots*
- *NOS equipment*

## 6.3. Calculated Performance Parameters

The vehicle derives speed and acceleration from the size of the engine and the amount of armor it’s carrying. The more armor it has, the slower the speed will be. Similarly, the stronger the engine, the faster the vehicle.

- a) The speed of movement indicates how quickly the vehicle will travel a specified path for a period of time (*in mph*):

$$\text{Travel speed} = (\text{Engine power} - \text{Armor})/1.6$$

- b) The car does not reach its maximum speed immediately. The car will accelerate until it reaches "Travel" speed. Acceleration to maximum speed is calculated by the formula (*in miles/h<sup>2</sup>*):

$$\text{Acceleration} = (\text{Travel speed}/10) / (\text{Acceleration Ratio} + 1)$$

- c) The acceleration ratio is calculated using the following formula:

$$\text{Acceleration Ratio} = \text{Armor} / \text{Engine Power}$$

#### 6.4. Premium Vehicles

There are 30,000 Premium Grade vehicles - this category includes **special vehicles**. Special vehicles are *extremely* rare premium vehicles equating 1000 total to ever be released. Not only do these vehicles have outstanding speed, armor, and BZN specs, the special vehicles have unique abilities unlike any other vehicle in the game.

## SPECIAL VEHICLES

## LAMBO



The Lambo is a speedy beast on customized sand-adapted suspension. There are only **100 Lambos** to ever be released.

### Body parameters:

**Speed:** 125 – 219 *mph*

**Acceleration:** *instant*

**Engine Power:** 900 – 1000 *HP*

**Armor:** 650 – 700 *units*

**BZN tank:** 200 – 250 *units*

**Main weapon slots:** 1 *pc.*

**Slots of additional weapons:** 0 – 2 *pcs.*

**Slots of additional equipment:** 0 – 5 *pcs.*

**Bonus parameter:** *instantly gains speed*

**Slot of wheels**

**NOS equipment**

## CAR TANK



The Car Tank is a stylish special vehicle with incredible armor and off roading tracks. Tanks are slow and have relatively small BZN tanks, but they don't receive critical damage and have a lot of weaponry. There are only **300 Tanks** that will ever be released.

### Body parameters:

**Speed:** 12 – 62 mph

**Slots of additional weapons:** 0 – 5 pcs.

**Acceleration:** 0.63 – 3.21 miles/h<sup>2</sup>

**Slots of additional equipment:** 0 – 5 pcs.

**Engine Power:** 1900 – 2000 H P

**Bonus parameter:** *does not receive critical damage*

**Armor:** 1700 – 1800 units

**Slot of wheels**

**BZN Tank:** 150 – 200 units

**NOS equipment**

**Main weapon slots:** 1 – 3 pcs.

## HOVERCRAFT



The Hovercraft is a fast, maneuverable vehicle capable of instantaneous turns without loss of speed. There are only **600 Hovercrafts** that will ever be released.

### Body parameters:

**Speed:** 62 – 187 *mph*

**Acceleration:** 3.27 – 10.71 *miles/h<sup>2</sup>*

**Engine Power:** 1100 – 1200 *HP*

**Armor:** 900 – 1000 *units*

**BZN Tank:** 250 – 300 *units*

**Main weapon slots:** 1 – 2 *pcs.*

**Slots of additional weapons:** 0 – 3 *pcs.*

**Slots of additional equipment:** 0 – 2 *pcs.*

**Bonus parameter:** *perfect maneuverability*

**Slot of wheels**

**NOS equipment**

## PREMIUM VEHICLES

## SUV



The SUV has a good balance of speed, armor, and tank space. The SUVs can be fast and deadly, depending on the type of weapons used. There are only **20,000 SUVs** that will ever be released.

### Body parameters:

**Speed:** 62 – 156 *mph*

**Acceleration:** 3.57 – 10.42 *miles/h<sup>2</sup>*

**Engine Power:** 400 – 500 *HP*

**Armor:** 250 – 300 *units*

**BZN Tank:** 150 – 200 *units*

**Main weapon slots:** 1 – 2 *pcs.*

**Slots of additional weapons:** 0 – 1 *pcs.*

**Slots of additional equipment:** 0 – 2 *pcs.*

**Slot of wheels**

**NOS equipment**

## WAR TRUCK



The War Truck is a moving battle fortress with a huge BZN tank, but it is extremely slow. War Trucks can be used to carry large amounts of Benzene across the Wasteland, especially when paired with lighter “guarding” vehicles. There are only **9,000 War Trucks** that will ever be released.

### Body parameters:

**Speed:** 31 – 93 *mph*

**Main weapon slots:** 1 – 2 *pcs.*

**Acceleration:** 1.61 – 5.11 *miles/h<sup>2</sup>*

**Slots of additional weapons:** 0 – 2 *pcs.*

**Engine Power:** 850 – 900 *H P*

**Slots of additional equipment:** 0 – 3 *pcs.*

**Armor:** 750 – 800 *units*

**Slot of wheels**

**BZN Tank:** 300 – 450 *units*

**NOS equipment**

## MID-GRADE VEHICLES

## 6.5. Mid-Grade Vehicles



Mid-Grade Vehicles are designed for experienced players looking for a good balance of price and power. These vehicles are going to be offered for sale during fall of 2018. There are **150,000 Mid-Grade Vehicles** that will ever be released.

### Body parameters:

**Speed:** 37 – 144 *mph*

**Main weapon slots:** 1 *pcs.*

**Acceleration:** 2.3 – 9.6 *miles/h<sup>2</sup>*

**Slots of additional weapons:** 0 – 2 *pcs.*

**Engine Power:** 160 – 450 *HP*

**Slots of additional equipment:** 0 – 1 *pcs.*

**Armor:** 80 – 280 *units*

**Slot of wheels**

**BZN Tank:** 50 – 120 *units*

**NOS equipment**

## REGULAR-GRADE VEHICLES

## 6.6. Regular-grade vehicles



Regular-Grade Vehicles are the entry-level war machines for all kinds of players. They can be used for general purposes, Benzene mining, Wasteland patrol, and vehicular combat. The regular-grade vehicles are going to be offered for sale in 2019. There are only **1,000,000 Regular-Grade Vehicles** that will ever be released.

### Body parameters:

**Speed:** 19 – 112 *mph*

**Main weapon slots:** 1 *pcs.*

**Acceleration:** 1.00 – 7.37 *miles/h<sup>2</sup>*

**Slots of additional weapons:** 0 – 2 *pcs.*

**Engine Power:** 100 – 380 *HP*

**Slots of additional equipment:** 0 – 1 *pcs.*

**Armor:** 40 – 240 *units*

**Slot of wheels**

**BZN Tank:** 20 – 90 *units*

**NOS equipment**

## 7. Vehicle Customization and Preparation for the Apocalypse

Once the pre-order campaign for premium vehicles is completed, players will begin building and customizing their war vehicles from scratch. This is a spectacular 3D process that takes place on the browser window. The following features are customizable:

- *Body of vehicle*
- *Color*
- *Guns*
- *Wheels*
- *Installations: spikes, bull bars, saw blades, etc.*
- *Additional equipment*
- *Custom logo or message*

We call this process a “preparation for the apocalypse,” which will be happening until the alpha release of the game. During this time, users will be able to freely trade vehicles with others using the native marketplace (or any other marketplace of their choice). The decentralized nature of Ethereum allows players to take War Rider items outside the game and do whatever they want with them.

## 8. Vehicle Pre-order Details

War Riders will initiate the early vehicle pre-orders in September 2018. The process will start with a private pre-order sign up and the private distribution of the War Paper. People who have signed up for private pre-orders will have a chance to purchase vehicles before the sale is available to the general public. Premium vehicles (including special vehicles) will be offered for sale first, and total supply is capped at 30,000 vehicles.

The vehicle sale is handled by a pre-order smart contract on the Ethereum mainnet along with a Deadly Factory contract that “produces” the war machines. Just as any good dealership would offer, our premium vehicles will come with a full tank of Benzene to get players started in the game.

If you wish to participate in pre-orders, you must download a MetaMask extension for your web browser or use a Cipher browser on mobile. This will allow you to create an Ethereum wallet capable of receiving ERC-721 and ERC-20 tokens. You can buy Ether from an exchange of your choice (some countries including the U.S may use [Coinbase](#)). If these platforms are not available to you, research how to buy Ether specifically in your country. We have created [this](#) guide to help you get started.

The digital vehicles offered for sale on our website are finished products that include a digital image and respective non-fungible token that reside on the Ethereum blockchain. These digital vehicles represent a unique crypto-collectible that is intended for the entertainment purposes only.

## 8.1. Pre-Order Mechanics

During the pre-order process, all vehicles have a starting price which will increase by a certain percentage with every vehicle sold; therefore, the earlier you buy, the less you pay. Tactical and well-equipped players will purchase multiple vehicles early on to increase their chances of dominating the Wasteland. It is also recommended to pre-order multiple types of vehicles and combine them in the battle.

Please note that Ethereum charges a transaction fee which varies depending on the current network load. The transaction fee is not received by our company and is not something we control. Please set a sufficient amount of gas (use <https://ethgasstation.info> as a reference) in order for your transaction to successfully go through. Shortly after confirmation, the smart contract will disperse a new, shiny war vehicle to your wallet.

Early game supporters (those who participate in early pre-orders) will be the only beta-testers allowed during the testing period which will be announced as we move closer to release. In addition, early game supporters will have a head start at the official launch which will allow them to mine a huge chunk of Benzene before everyone else has the chance.

When buying a vehicle, players won't know exactly what kind of performance stats they are getting, as the vehicle being pre-ordered is produced on the fly. Players will know the type (SUV, Lambo, etc.), but they won't know the vehicle's speed or how much BZN the tank can hold. Performance ranges for each vehicle will

eventually be known, but only after delivery will they know exactly how each ride compares to others. The game developers believe this creates a fun and engaging experience that can be compared to opening a loot crate (or breeding a CryptoKittie for that matter).

## **8.2. Bulk buying:**

Users will be able to buy War Riders vehicles in bulk. Tactical and well-equipped players will purchase multiple vehicles early on to increase chances of dominating the Wasteland. Until now, such things were impossible because ERC-721 tokens have to be “minted” from the smart contract individually. The bulk buying function imposes no limits on the amount of vehicles a single user is able to purchase, thus initializing a single transaction. However, during the private pre-order campaign this will be limited to 10 vehicles per transaction. It will take some time for the Deadly Factory to deliver a large order, though vehicles start arriving to the user’s wallet within seconds.

## **9. Benzene Token Economics**

War Riders seeks to be fully transparent about the token economics and the issue of in-game currency. No ICO will be conducted, and all tokens are released during the gaming process. Benzene (BZN) is an ERC-20 token deployed on the Ethereum network. War Riders will issue a total of 100,000,000 Benzene tokens which will be distributed in the order below.

### 9.1. Token Quantity to be Released and the Economics

- 75,000,000 tokens will be released for free and are to be retrieved by the in game “mining” process
- 20,000,000 tokens are reserved for the company with a 1 year lockdown period
- 5,000,000 tokens are reserved for advisors and partners.

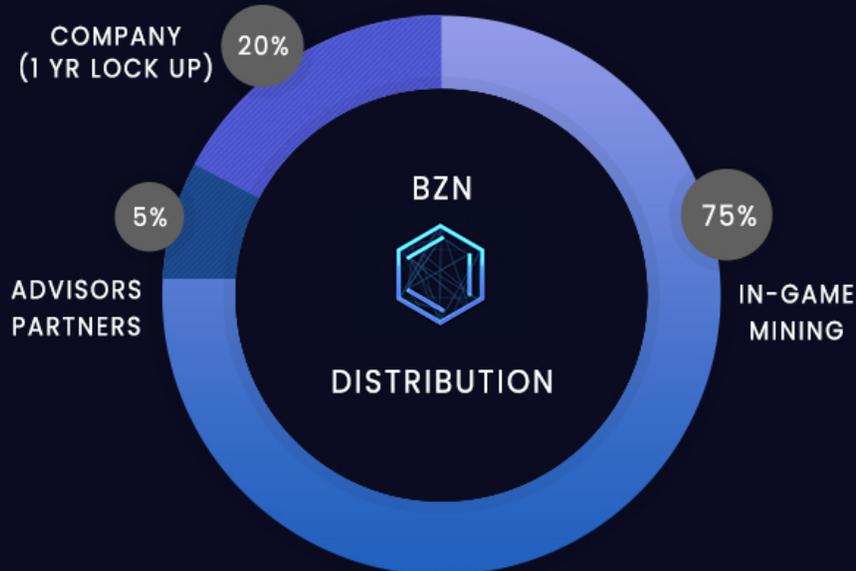


Fig.6 BZN token distribution

### 9.2. Game Pool and In-Game Mining

The initial 75,000,000 tokens are placed in the game pool and will be distributed via a smart contract during the game. Players drive through the Wasteland discovering Benzene waypoints where they fill up their tanks with BZN tokens. We call

this process “human mining”, even though in its nature, it’s simply discovering the coins in the game. Benzene will never fully run out – when players purchase nitro-boosts, shields, guns, garage upgrades, etc., Benzene is being transferred back into the game pool (with 30% of Benzene burned), thus causing Benzene to become more scarce overtime

### 9.3. Deflationary Mechanism

Every time a garage, weapon, or any asset is bought with Benzene, the tokens go back to the game pool, and 30% of the transaction is “burned”. This mechanism will decrease the total amount of token supply over time and will ensure the scarcity of the valuable resource. Please note that you do not need to spend Benzene to drive your vehicles in the Wasteland. Benzene is used solely for purchases and upgrades.

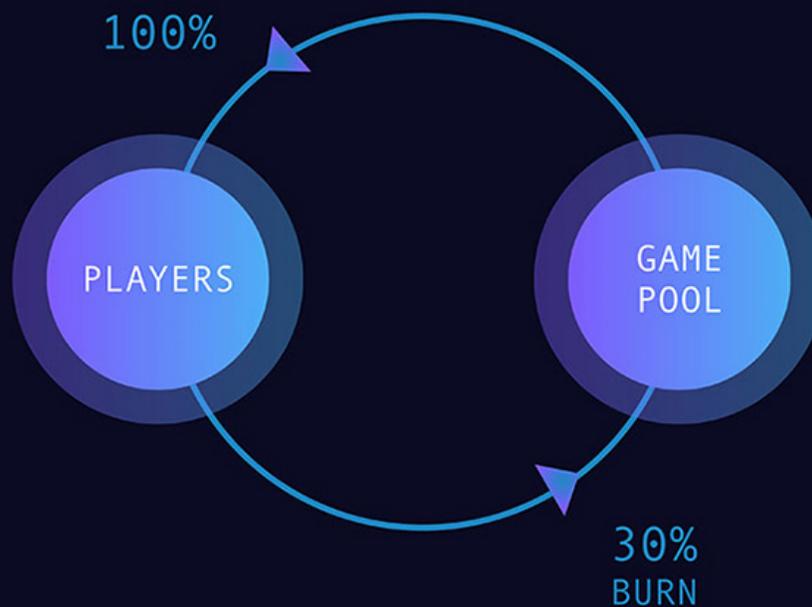


Fig.7 BZN burn mechanism

### 9.4. BZN fill and asset movement flow

All premium vehicles will come with a tank which will be filled to the top with BZN at the end of the pre-order campaign. The BZN truck will stop by the garage with a huge nozzle to disperse BZN straight to the user’s wallet. Let’s say a player bought 10 War Trucks with 400 BZN tank capacity in each, at the end of the pre-order campaign the BZN truck will fill you up with 4,000 BZN. Filling vehicles with BZN officially kicks off the “preparation for the Apocalypse” process and allows users to immediately have access to the valuable resource.

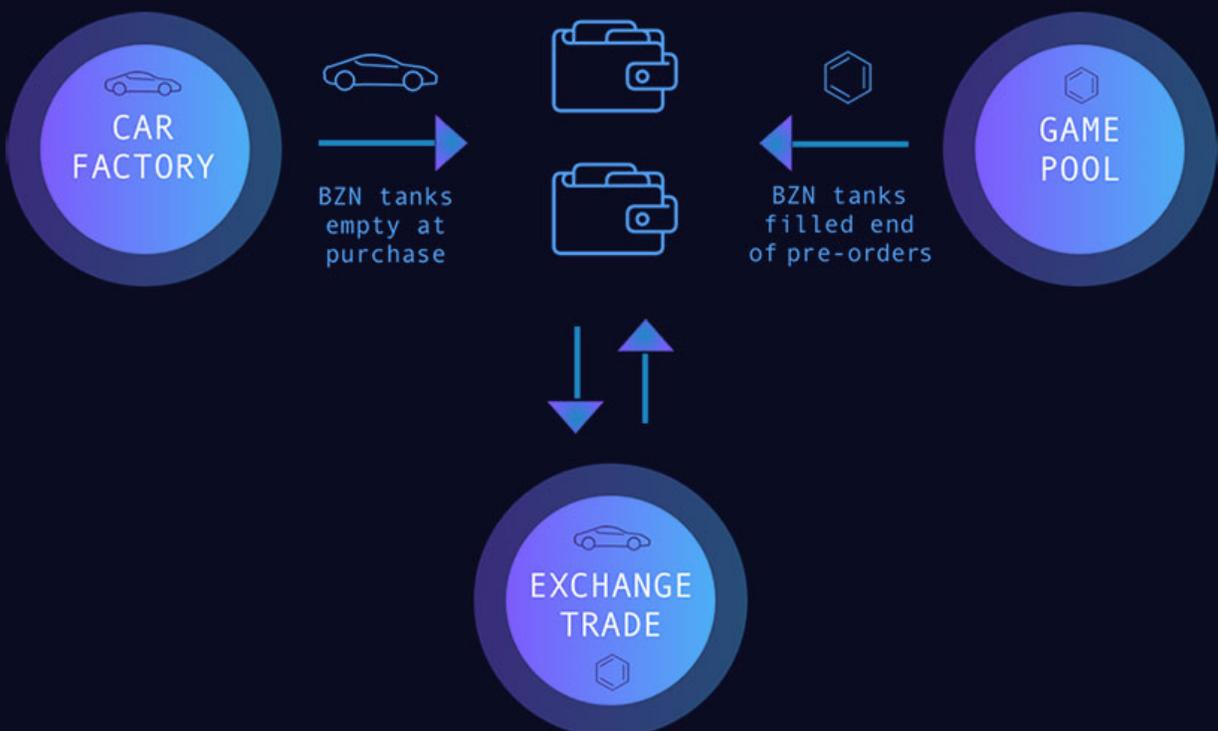


Fig.8 BZN fill and asset movement flow

## 10. Gun Types, Characteristics and Cases

The guns in War Riders are always evolving with new guns frequently being introduced. More premium weapons will be released during the early days of the gun sale, while less powerful weapons will be introduced closer to the beta version of the game. When a certain gun is removed from the case, the only way to acquire this gun would be to purchase it from other users.

The primary distribution of the weapons in the game is organized via weapon cases that can be opened using BZN or ETH. Weapon cases are produced by a Smart Contract called Gun Factory, which is the only contract that is allowed to produce guns for the game. All weapons in War Riders resemble modern-day firearms combined with various electronic components for remote control and intelligent shooting. There are four main categories of weapons that will be produced by the Gun Factory:

- *Machine Guns*
- *Rocket Launchers/Anti-tank Weapons*
- *Flamethrowers*
- *Lasers*

However, only Machine Guns and Rocket Launchers will be available during the alpha phase. Please stay tuned for updates on the other two categories. The guns are distinguished by main weapons and secondary weapons.

## 10.1. Main Weapons

Main weapons are installed on the roof of the vehicle and can rotate 360 degrees. They come with a special gun shield that protects the weapon and gives it a unique appearance. The gun shield may come with a certain skin, which does not provide any special ability and is purely cosmetic. The skin makes the gun rare and desirable. There will be a limited amount of skins released, and some skins will be extremely rare. When a player opens a loot box, the gun will have a random skin or no skin at all.



## 10.2. Secondary Weapons

Secondary weapons are smaller and less powerful versions of main weapons. These weapons are installed on the front of the vehicle, one on each side, and have limited rotation angle (i.e they can only shoot forward). Secondary weapons have no gun shield and are sold as a pair in one NFT token.



### 10.3. Weapon Cases

Three main weapon cases will be initially provided by the Gun Factory:

- *Premium case*
- *Mid-grade case*
- *Regular case*

Each case will include a different mix of weapons, which is randomly generated based on the gun rarity indexes and the specified amount of skins in each case. The randomization takes into account a sample of the 100 upcoming cases, which guarantees that any sample of 100 guns sequentially opened will have all specified weapons in strict proportions (based on the rarity indexes).

## 10.4. Supply Overview

The game introduces a single ERC-721 weapon smart contract. The total number of guns that can be produced by the Gun Factory is uncapped. However, the emission rate is strictly limited and enforced in the code:

- *Premium case - 20 per day*
- *Mid-grade case - 100 per day*
- *Regular case - 200 per day*

The above supply limits will be automatically imposed via a Gun Factory contract on Nov 12, 2019 and cannot be changed by anyone. All limits are enforced on a *monthly basis*. The supply limits before Nov 12, 2019 are higher to accommodate all buyers in case of an initial rush:

First month of the sale:

- *Premium case - 5,000 per month*
- *Mid-grade case - 20,000 per month*
- *Regular case - 30,000 per month*

Second month of the sale:

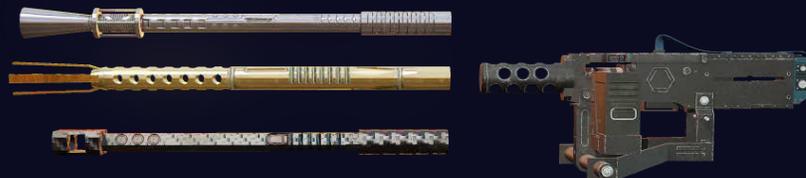
- *Premium case - 2,500 per month*
- *Mid-grade case - 10,000 per month*
- *Regular case - 15,000 per month*

## 10.5. Custom Barrels

The secondary and main guns will also have different types of barrels. There are only four types of barrels that will be released in the alpha phase:

- *Regular*
- *Carbon (premium)*
- *Gold (premium)*
- *Platinum (premium)*

Premium barrels are much more rare than regular barrels. When opening a loot crate, the gun barrel will be also be chosen randomly, so the rarity will depend on luck.



## 10.6. Premium and Standard Weapons

The case-opening experience will start with 3 premium gun types, 24 unique combinations of weapons and countless numbers of skins. Combined with random gun stat generation, virtually every weapon in the Wasteland will be unique.

The standard weapons will be placed on the vehicle by default if the vehicle has no other weapon installed. The system will randomly assign either the Machine Gun or Rocket Launcher to the main and secondary weapon slots.

# PREMIUM WEAPONS

## M134C MINIGUN



The M134C Minigun is a crypto-version of the classic six-barrel rotary machine gun with a high, sustained rate of fire. It features a Gatling-style rotating barrel with electric motor and an old cryptocurrency miner that controls the rotation and automatic firing.

### Gun parameters:

**Weapon type:** *Machine gun*

**Ammo type:** *0.30" bullet*

**Rate of fire:** *400 – 600 rpm*

**Muzzle velocity:** *450 – 800 ft/s*

**Effective range:** *355 – 630 ft.*

**Max range:** *1416 – 2512 ft.*

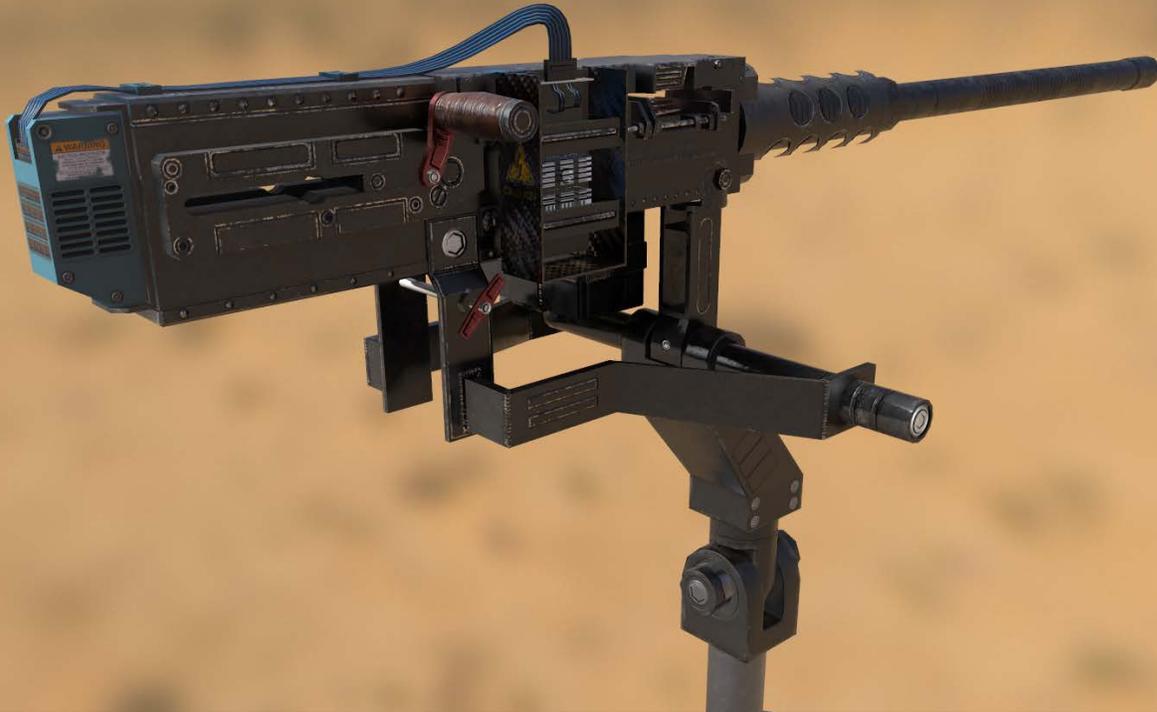
**Damage level:** *1 – 3*

**Stability level:** *1 – 6*

**Gun rarity index:** *1 – 10*

**Barrel:** *Regular, Carbon, Gold, Platinum*

## M2C BROWNING



The M2c Browning is a computer-controlled version of an automatic, recoil operated, air-cooled machine gun with disintegrating metallic link-belt that is used to feed the ammunition into the weapon. Traditional spade grips and trigger were replaced with a digital trigger that is controlled by a small, single-board computer.

### Gun parameters:

**Weapon type:** *Machine gun*

**Ammo type:** *.50 BMG bullet*

**Rate of fire:** *300 – 450 rpm*

**Muzzle velocity:** *550 – 985 ft/s*

**Effective range:** *433 – 776 ft.*

**Max range:** *1729 – 3089 ft.*

**Damage level:** *1 – 4*

**Stability level:** *2 – 8*

**Gun rarity index:** *1 – 10*

**Barrel:** *Regular, Carbon, Gold, Platinum*

## M5 MAAWS



The M5 MAAWS is the next generation recoilless anti-tank weapon with extended barrels for maximum effective range. Modified with an autoloader, this gun features continuous firing with no need for manual reloading. Three portable computer units with power supplies provide the weapon with necessary power and logic for fully automated firing.

### Gun parameters:

**Weapon type:** *Rocket launcher*

**Ammo type:** *84 mm anti – tank rocket*

**Rate of fire:** *55 – 100 rpm*

**Muzzle velocity:** *400 – 580 ft/s*

**Effective range:** *315 – 457 ft.*

**Max range:** *1259 – 1823 ft.*

**Damage level:** *5 – 10*

**Stability level:** *5 – 10*

**Gun rarity index:** *1 – 10*

**Barrel:** *Regular, Carbon, Gold, Platinum*

# STANDARD WEAPONS

## MACHINE GUN



The standard Machine Gun is a fully automatic, belt-fed firearm with a single computer unit for continuous adaptive shooting. The standard Machine Gun features a competitive rate of fire with a decent shooting range. In addition, impressive reliability in the combat and intermediate rounds make this weapon a good starting kit.

### Gun parameters:

**Weapon type:** *Machine gun*

**Ammo type:** *5.56×45mm NATO*

**Rate of fire:** *200 – 450 rpm*

**Muzzle velocity:** *300 – 690 ft/s*

**Effective range:** *236 – 544 ft.*

**Max range:** *945 – 2168 ft.*

**Damage level:** *1*

**Stability level:** *1 – 4*

**Gun rarity index:** *1*

**Barrel:** *Regular only*

## ROCKET LAUNCHER



The standard Rocket Launcher is a fully automatic rocket-propelling device with a long barrel and standard autoloader. Capable of firing heavy anti-tank rockets at a decent muzzle velocity, this weapon is capable of causing serious damage to the enemy. Simplicity and reliability makes the standard Rocket Launcher kit a good starting weapon.

### Gun parameters:

**Weapon type:** *Rocket launcher*

**Max range:** 724 – 1514 *ft.*

**Ammo type:** *66 mm anti – tank rocket*

**Damage level:** 4 – 6

**Rate of fire:** 40 – 90 *rpm*

**Stability level:** 3 – 7

**Muzzle velocity:** 230 – 490 *ft/s*

**Gun rarity index:** 1

**Effective range:** 276 – 386 *ft.*

**Barrel:** *Regular only*

## 10.7. Skins

An exclusive, rare skin is what makes any gun desirable on the market. At War Riders, there are 5 categories of skins that convey different information about the rarity of the skin:

- Common - usually 40% of all skins
- Rare - around 30% of all skins
- Epic - approximately 15% of all skins
- Legendary - around 10% of all skins
- Exclusive - less than 5% of all skins

New skins are constantly being added to the mix, which will make the case-opening experience fun and exciting for a long time. You can also request a skin via Twitter, Telegram or Discord.

## 10.8. Premium case



The premium weapon case contains only main top-of-the-line weapons with the highest chance of receiving Exclusive skins. This case contains:

- Common skins - 10%
- Rare skins - 20%
- Epic skins - 35%;
- Legendary skins - 25%
- Exclusive skins - 10%.

Case stats:

**Weapon types:** *Main guns only*

**Ammo type:** *0.30", .50 BMG, 84 mm*

**Rate of fire:** *60 - 600 out of 600 rpm*

**Muzzle velocity:** *350 - 985 out of 985 ft/s*

**Effective range:** *276 - 776 out of 776 ft.*

**Max range:** *1102 - 3089 out of 3089 ft.*

**Damage level:** *1 - 10 out of 10*

**Stability level:** *3 - 10 out of 10*

**Gun rarity index:** *5 - 10 out of 10*

**Barrel:** *Regular, Carbon, Gold, Platinum*

## 10.9. Mid-grade case



The mid-grade weapon case contains main and alt weapons with a high chance of receiving Legendary skins. This case contains:

- No skin - 15%
- Common skins - 25%
- Rare skins - 30%
- Epic skins - 15%
- Legendary skins - 13%
- Exclusive skins - 2%

Case stats:

**Weapon types:** *Main and alt guns*

**Max range:** 945 - 2918 out of 3089 ft.

**Ammo type:** 0.30", .50 BMG, 84 mm

**Damage level:** 1 - 9 out of 10

**Rate of fire:** 50 - 570 out of 600 rpm

**Stability level:** 2 - 8 out of 10

**Muzzle velocity:** 300 - 930 out of 985 ft/s

**Gun rarity index:** 2 - 7 out of 10

**Effective range:** 236 - 732 out of 776 ft.

**Barrel:** *Regular, Carbon, Gold, Platinum*

## 10.10. Regular case



The regular weapon case contains main and alt weapons with a high chance of receiving Rare skins. This case contains:

- No skin – 30%
- Common skins – 40%
- Rare skins – 25%
- Epic skins – 4%
- Legendary skins – 2%

Case stats:

**Weapon types:** *Main and alt guns*

**Ammo type:** *0.30", .50 BMG, 84 mm*

**Rate of fire:** *40 – 550 out of 600 rpm*

**Muzzle velocity:** *230 – 900 out of 985 ft/s*

**Effective range:** *181 – 709 out of 776 ft.*

**Max range:** *724 – 2824 out of 3089 ft.*

**Damage level:** *1 – 8 out of 10*

**Stability level:** *1 – 7 out of 10*

**Gun rarity index:** *1 – 5 out of 10*

**Barrel:** *Regular, Carbon, Gold, Platinum*

## 10.11. Shooting Range Calculation

The bullet derives its maximum and effective shooting range from muzzle velocity and type of ammo. The greater the muzzle velocity is, the farther the gun will shoot. At War Riders, the game engine uses the following formula to calculate the shooting range of the projectile:

$$S = \frac{\ln(1 + v_0Dt)}{D}$$

*S – shooting range*

*v<sub>0</sub> – muzzle velocity*

*D – projectile coefficient*

$t$  - projectile travel time

### Calculating Projectile Coefficient:

$$D = \frac{C_d P S_v}{2m}$$

$C_d$  - drag coefficient

$P$  - air density

$S_v$  - surface area of projectile

$m$  - mass of projectile

### Calculating Projectile Travel Time:

$$t = \sqrt{\frac{2y_0}{g}}$$

$y_0$  - the height at which the shot was fired

$g$  - gravitational acceleration

## 11. Weapon Case Opening Details and Economics

War Riders will initiate a gun case opening in September 2019. The process will start privately for the warriors who RSVP'd to the sale. These players will have a chance to purchase guns before the sale is available to the general public.

The gun sale is handled by a case-opening smart contract on the Ethereum, called “the Gun Factory” contract, that “produces” the gun cases. If you wish to participate in the case opening, you must download a MetaMask extension for your web browser or use a mobile Ethereum wallet, such as Trust. This will allow you to create an Ethereum wallet capable of receiving ERC-721 and ERC-20 tokens. You will need ETH or BZN to participate in the sale. We have created [this](#) guide to help you get started.

The digital weapons offered for sale on our website are finished products that include a digital image and respective non-fungible token that reside on the Ethereum blockchain. These digital guns represent a unique crypto-collectible that is intended for entertainment purposes only.

### **11.1. Case-Opening Mechanics**

All cases have a starting price in USD, which will increase by a certain percentage with every case opened; therefore, the earlier you buy, the less you pay. Even though the price will be displayed in USD, you can only open the case by paying with either BZN or ETH. The BZN value will be pegged to USD according to the [Internal Wasteland Rate](#). The ETH value will be fed into the smart contract from an Oracle system, which means that the ETH price per case will fluctuate based on a current market rate. Buyers paying with BZN will enjoy a single transaction and flawless weapon delivery, thanks to BZN 2.1! Please note that buying with BZN requires ETH, which is used to cover minting fees and other costs. When the purchase is complete,

30% of the total BZN amount spent will be burned, and 70% of BZN will go back to the Game Pool.

After the purchase, the guns will automatically appear in your wallet, gaming account, OpenSea and other marketplaces as ERC-721 tokens. You will be able to install the new shiny weapons on your war machines right away.

When opening a weapon case, players won't know exactly what kind of performance stats they are getting, as the gun is produced on the fly. Performance stats for each gun will eventually be known, but only after delivery of the weapon to the player's wallet.

## **11.2. Bulk case opening:**

The Gun Factory will support fully automatic bulk buying with the ability to open up to 1,000 loot boxes with a single transaction. We may limit the maximum bulk opening amount during the private pre-sale. Tactical and well-equipped players will open multiple cases early on to increase chances of getting rare weapons and skins. Until now, such things were impossible because ERC-721 tokens have to be "minted" from the smart contract individually. It will take some time for the Gun Factory to deliver a large order, though guns start arriving to the user's wallet within seconds.

## 12. Additional Information

### 12.1. Earn ETH and BZN by becoming a Virtual Vehicle/Gun Dealer

We are pleased to announce the start of our referral campaign. Anyone will be able to generate a unique referral URL using our website which can be used to earn Ether and Benzene. You will automatically receive a status of a “War Riders Virtual Vehicle/Gun Dealer” and be able to earn 5% commission on every vehicle sold using your referral link. Post it to your social media outlets or send it to your friends and earn while you sleep! The top 3 dealers will receive unique weapons and vehicles!

### 12.2. Marketplaces and exchanges support:

War Riders strongly believes players should have full control over their hard-earned loot crates and virtual money. Recently, War Riders partnered with OPSkins and WAX announcing the company’s items will be tradable with WAX Tokens, Bitcoin, ETH, US dollars, Euros and dozens of other currencies. In addition, players will be able to freely trade their in-game items at OpenSea and similar crypto-collectible marketplaces, while BZN is coming to WAX and other exchanges.



### **12.3. Who can participate?**

Absolutely anyone! We believe in true decentralization and globalization, and we welcome players from all over the world. There is no limit imposed whatsoever on the amount of digital vehicles you purchase. In fact, you should buy as many as you can to have a head start at total domination of the Wasteland.

### **12.4. Refunds**

The irreversible nature of blockchain does not allow us to issue refunds to customers who pre-order our in-game items. No refunds will be given and all sales are final. If you have any questions or concerns, please contact us via email at [info@warriders.com](mailto:info@warriders.com), and we will try to solve any problems that arise. If you no longer wish to own an in-game item, you may sell it using our native marketplace or any marketplace of your choice.

## 13. About Us

War Riders is developed by [Cartified, Inc](#) – a VC backed blockchain software company based out of North America. Cartified was founded in 2015 by the American and Georgetown University graduates of Washington D.C.

Cartified is backed by two VC funds – the AU Venture Fund and ERA Venture Fund. In 2016, Cartified successfully completed the acceleration process with [Entrepreneurs Roundtable Accelerator](#) in New York City which is one of the top 5 accelerators in the U.S.

Watch the pre-launch video:



### 13.1. Key team members



Vlad

Head Dreamer & Blockchain Nerd



Ryan

Frontend Pro & Football Champ



Eddie

Master of Ethereum



Caroline

Community Hero & Candy Crusher



Nick

Marketing Freak & Main Miner



Dmitriy

Data Wizard & Half Life Hero



Jay

Marketing Guru & WoW Adept



Ignat

Grumpy Game Dev & Inventor of UNI



Britanny

Strategy Aide & Pokemon Master



Sane

Global Expansion & Blockchain Gmr

## 14. References:

1. [http://resources.newzoo.com/hubfs/Reports/Newzoo\\_Free\\_2017\\_Global\\_Esports\\_Market\\_Report.pdf?hsCtaTracking=5a96aa39-a810-47a6-834b-559c317775c3%7C6a2d5758-bab2-4d87-9fbe-f82dc9ba638a](http://resources.newzoo.com/hubfs/Reports/Newzoo_Free_2017_Global_Esports_Market_Report.pdf?hsCtaTracking=5a96aa39-a810-47a6-834b-559c317775c3%7C6a2d5758-bab2-4d87-9fbe-f82dc9ba638a) (2017 Global Esports Market Report, Newzoo 2017)
2. <https://newzoo.com/insights/articles/global-games-market-reaches-137-9-billion-in-2018-mobile-games-take-half/>
3. <https://www.parksassociates.com/services/onlinegaming> (Online gaming and digital distribution, Parks Associate 2011)
4. <https://kittysales.herokuapp.com/> (Total Cryptokitty Sales, @nieldlr 2018)
5. <https://www.superdataresearch.com/market-data/market-brief-year-in-review/>
6. <https://hackernoon.com/how-crypto-kitties-disrupted-the-ethereum-network-845c22aa1e6e>
7. <https://www.coindesk.com/gaming-firm-to-buy-80-million-stake-in-korean-bitcoin-exchange-korbit/>
8. <https://ethgasstation.info>
9. <https://www.techopedia.com/definition/4351/single-point-of-failure-spoof>
10. <https://github.com/ethereum/wiki/wiki/Proof-of-Stake-FAQs>
11. <https://dappradar.com/dapps>
12. <https://techcrunch.com/2017/09/28/nxc-corp-acquires-korbit>