World Turtle Coin (TURTL) Whitepaper

sticker-based MMORPG platform and marketplace
version 1.3.0

ABSTRACT

World Turtle Coin is preparing to launch a platform enabling a rebirth and reinvention of the thousands of existing beloved free-to-play text-based games that were precursors to modern day MMORPGs and messaging apps. The new games will be mobile and sticker-based, scalable to millions of users, and will take advantage of the advent of micropayments to make money from free-to-play games, all while taking advantage of existing assets, including those already possessed by World Turtle Coin as well as those held by thousands of other content creators across the world.

BACKGROUND SUMMARY

Gaming in the first two decades of the 21st century has been dominated by MMORPG titans such as World of Warcraft and Everquest as well as casual and mobile games such as Pokemon Go!, Candy Crush, and Mafia Wars, all of which have turned to a free-to-play micropayment based model to bring their owners massive financial success.

The very first multiplayer online role-playing game on the Internet was a Multi User Dungeon (MUD), created in 1980 [1]. The immersive gameplay, puzzle solving, exploring, and interacting with other players made the MUD genre a common entertainment choice for college students, and later, bored office workers (the two places where you could find dedicated Internet connections). As the Internet became more consumer oriented the MUD continued to be a home for players of all ages and locations in the world. Since the early days this genre of games has evolved from text adventures to the graphical games starting with simple ones such as King's Quest and Leisure Suit Larry, and later Ultima Online, Everquest, and World of Warcraft.

In a parallel development, starting with MySpace and moving to Facebook and the Apple and Android app spaces, free-to-play social games supported by micropayments have become the online spaces where people spend their idle time, whether that be lying in bed or standing in line or sitting on the toilet. Games like Mafia Wars, Candy Crush, and Words with Friends have long since become the socially accepted addictions people use to keep up long distance relationships with friends and family, as well as fill sleepless nights and rainy days with strangers, just like MUDs were for college students in the days of yore.

The World Turtle Coin developers believe the now ubiquitous always-on home and mobile Internet connection for computers and smartphones, and widespread adoption of both social games and online role playing games, along with the developer's backgrounds in these spaces, provides the developers with an opportunity to rebuild this beloved entertainment form and extend it in new ways via what the developers see as an inevitable reconvergence of these temporarily divergent technologies of MMORPGs and always-connected social networks.

For over 20 years, prior to the consumer acceptance of the micropayment model, like most other administrators, the main developers of this project worked on their primary MUD DeadofNight (as well as others) as a hobby, a public service, and a labor of love. As the creators and administrators, they created and managed a diverse and changing team of players turned programmers who expanded the world in a shared vision. Over two decades, the DeadofNight MUD alone (created by the World Turtle Coin developers) was home to tens of thousands of players from all over the globe. The developers also helped the MUD ecosystem through their professional careers, providing hosting to numerous other games when the Internet hosting scene was far more complicated than today. As we compare today's online games, apps, and messaging services to MUDs of the past, many aspects of these text based games, particularly communications and easy socializing, are still unmatched by the MMOs of today. In effect, MUDs were a small social network with sophisticated use of emoticons and emotion focused grammars for flirting and discussions. MUDs attracted casual players whose dedication became anything but casual and who liked to stay logged in all the time (before being connected 24/7 was commonplace) not just to play but for social interaction. This model fits with today's always connected smartphones and always-on broadband connection.

Establishing a crypto coin, World Turtle Coin (TURTL) , along with a successful Initial Coin Offering (ICO), would allow decades of existing game assets to be utilized in moving DeadofNight to today's standards of computers, smartphones and tablets. This coin would also be used within the games themselves for those players who wish to enhance their user experience with user generated content.

DeadofNight, the first World Turtle Coin game to go online, has always been free to play and will continue to be free. However, current free to play games have made micropayments commonplace, allowing MUDs like DeadofNight to become profit centers for their creators. Micropayments in the form of TURTL coins or through app store purchases will allow game

enhancements. In time, the TURTL coin will also be used in other unique online realities as the completed World Turtle platform will be used to help create other virtual worlds.
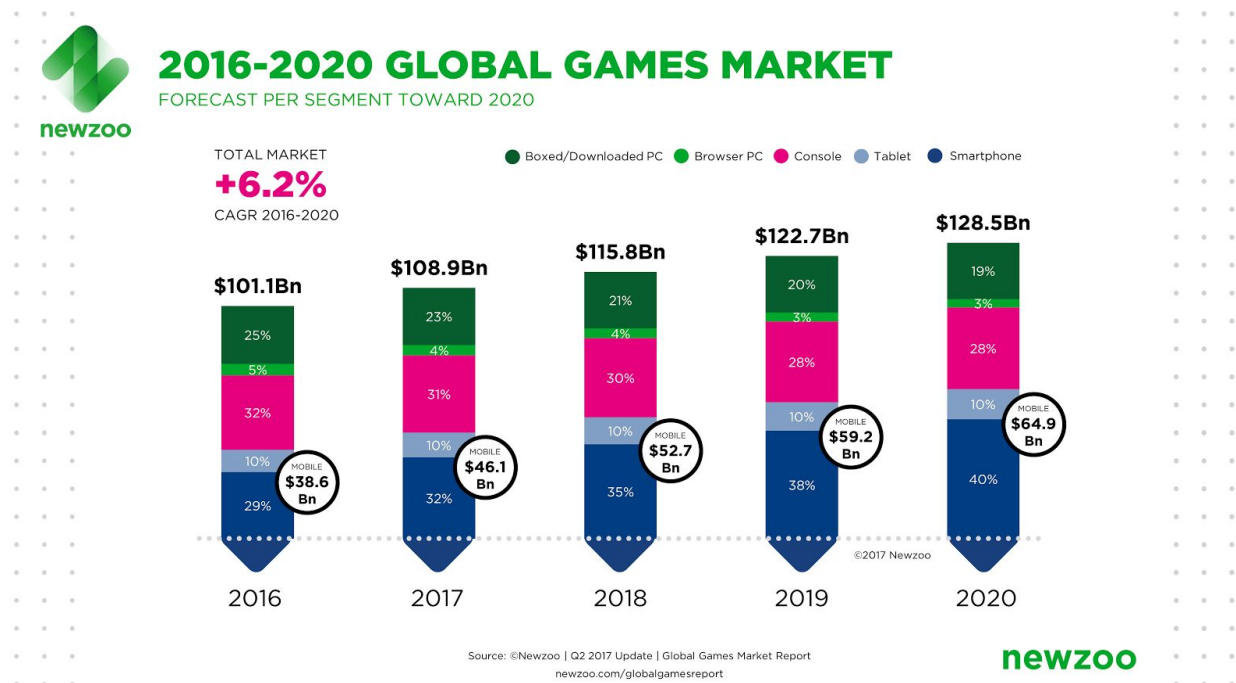
Utilizing their software project experience and game development experience, the World Turtle developers have broken the work down into achievable chunks that can be realized at discrete ICO funding levels. The most basic level would allow the development of sticker-based version of DeadofNight to be harvested, enhanced and reborn to be played in any modern browser, a first step. Further funding levels would provide resources to create smartphone access, in-game app development, and generalizing a modern gaming backend so other developers could take advantage of the existing assets and rebuild other MUDs into up-to-date, income-generating, sticker-based mobile games and messaging services without starting from scratch.
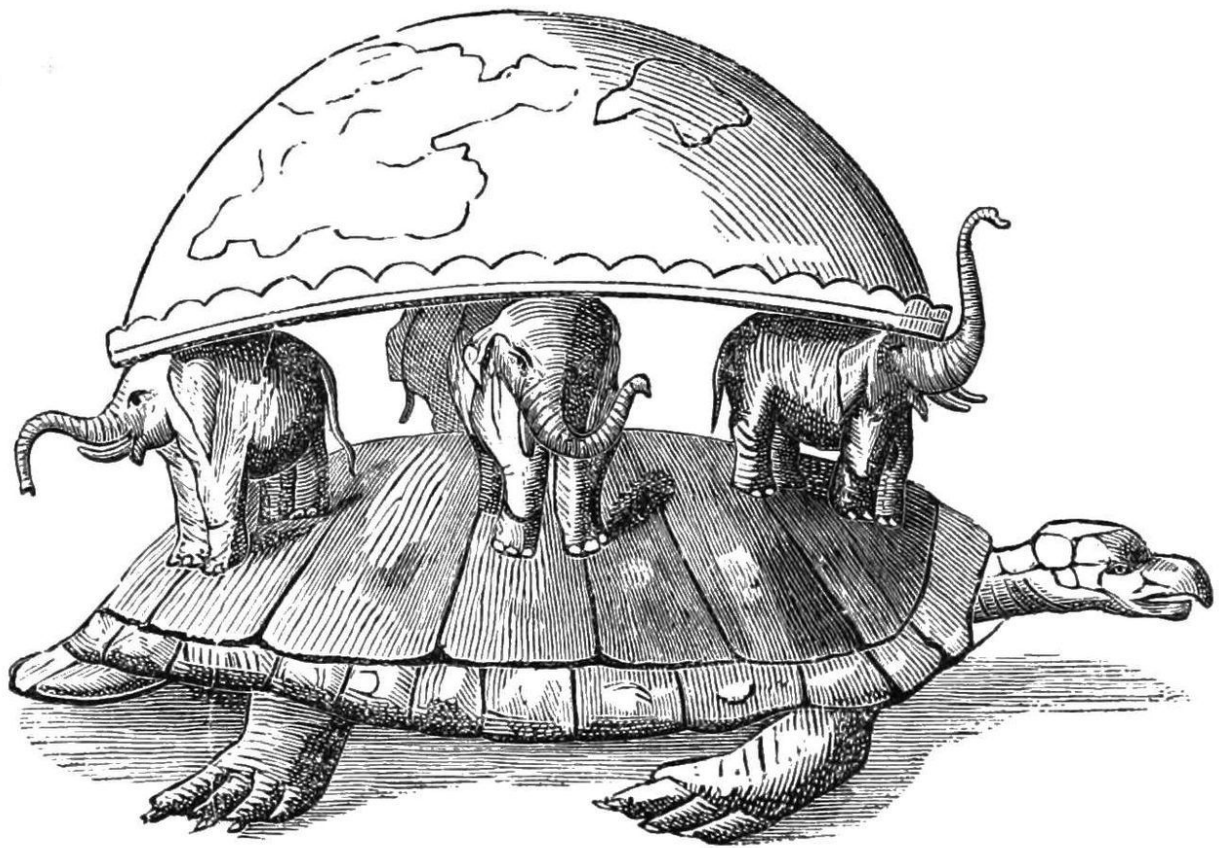
*1876 drawing representing the world turtle mytheme published in the U.S. before 1923 and public domain in the U.S.

MARKET

The opportunity represented by this ICO is tremendous. 2.2 billion gamers across the globe are expected to generate $108.9 billion in-game revenues in 2017. This represents an increase of $7.8 billion, or 7.8%, from the year before. Digital game revenues will account for $94.4 billion or 87% of the global market. Mobile gaming is the most lucrative segment, with smartphone and tablet gaming growing 19% year on year to $46.1 billion, claiming 42% of the market. By the year 2020, it is predicted that mobile gaming will represent just more than half of the total games market. [2]
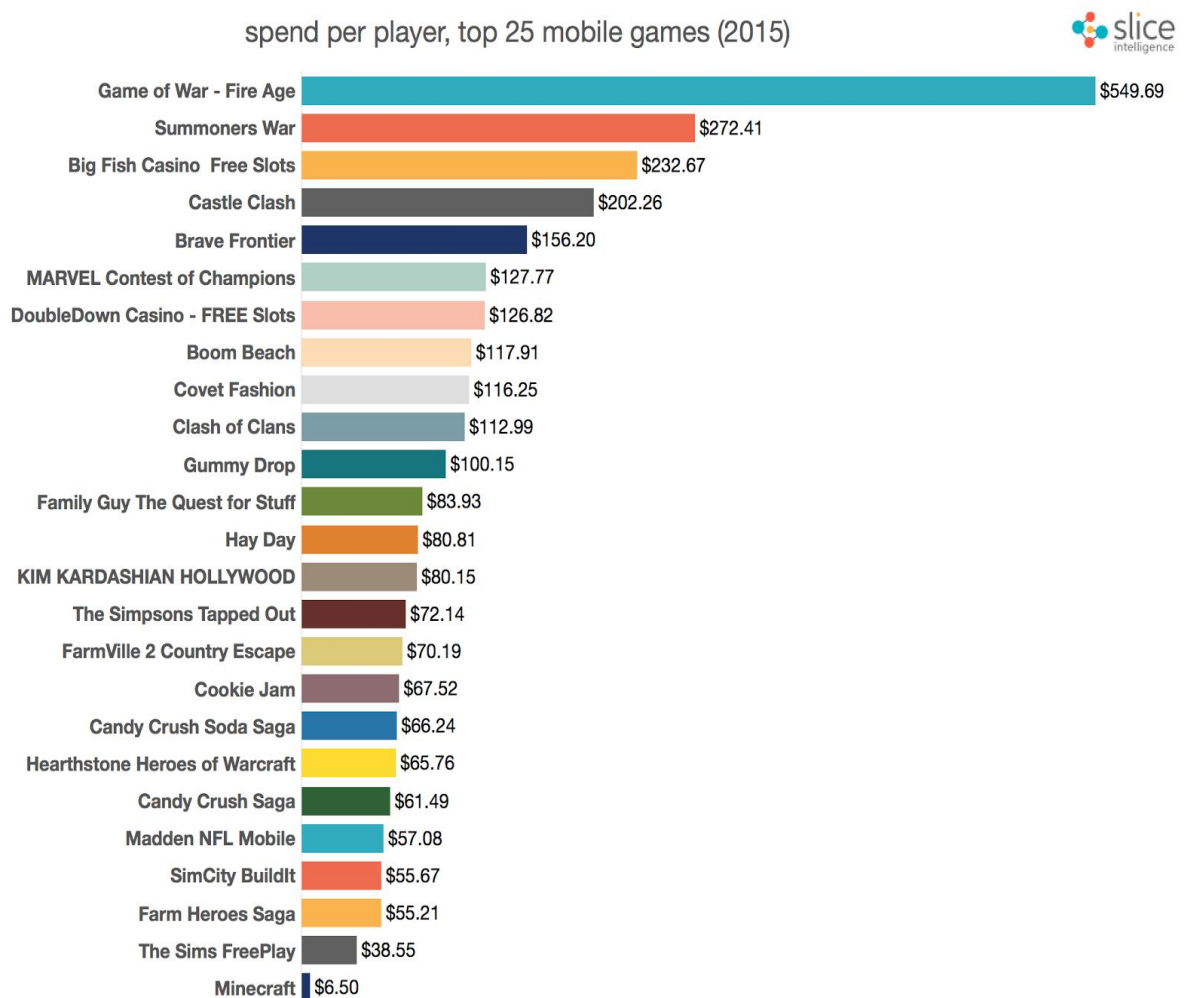

*Image from Newzoo.com
https://newzoo.com/insights/articles/the-global-games-market-will-reach-108-9-billion-in-2017-with-mobile-taking-42/

The sheer size of the global game market means that even something as "retro" as a MUD will have an audience. Also, nostalgia will provide an initial user base: retro gaming has seen a revival recently. Nintendo sold over 2.3 million Nintendo retro classic NES game systems. Classic games such as Mario and Pokemon have been updated, moved to smartphones, and become instant hits.

COSTS TO ACQUIRE NEW MOBILE GAME USERS VS INCOME PER USER

The cost to acquire a mobile user ranges from $2 for an android user to up to $6 for an IOS user. [3] The average mobile user spends $7.25 a month on in-app purchases. [4] This means a well received game can have sustained profitability. A popular game also means there will be a large playerbase in need of TURTL coins, whether direct from World Turtle or on the open exchanges.

While it may be presumptuous to compare potential revenue to the top mobile games, the purpose of this graph is to show the wide range of income between game genres. The developers believe DeadofNight, for example, may fall into the building games category much like a Minecraft, Sims or Simcity, though it may well fall into a combat or fantasy oriented category like many of the top games. However the product currently has no mobile history to support this belief, so this should not be taken as a guarantee.

spend per player, top 25 mobile games (2015)

Game	Spend
Game of War - Fire Age	$549.69
Summoners War	$272.41
Big Fish Casino Free Slots	$232.67
Castle Clash	$202.26
Brave Frontier	$156.20
MARVEL Contest of Champions	$127.77
DoubleDown Casino - FREE Slots	$126.82
Boom Beach	$117.91
Covet Fashion	$116.25
Clash of Clans	$112.99
Gummy Drop	$100.15
Family Guy The Quest for Stuff	$83.93
Hay Day	$80.81
KIM KARDASHIAN HOLLYWOOD	$80.15
The Simpsons Tapped Out	$72.14
FarmVille 2 Country Escape	$70.19
Cookie Jam	$67.52
Candy Crush Soda Saga	$66.24
Hearthstone Heroes of Warcraft	$65.76
Candy Crush Saga	$61.49
Madden NFL Mobile	$57.08
SimCity BuildIt	$55.67
Farm Heroes Saga	$55.21
The Sims FreePlay	$38.55
Minecraft	$6.50

Copyright © Slice Technologies 2016. January 1, 2015-December 31,2015. N=124,849 U.S. Online Shoppers

*Image and States from Slice.com
https://intelligence.slice.com/hardly-pocket-change-mobile-gamers-spend-an-average-of-87-dollars-on-in-app-purchases/

DeadofNight MUD (the first game to be reborn on the World Turtle platform)

Started in 1995, DeadofNight ran for over 20 years as a text based, multiplayer online role playing game. There was heavy active development for the first 3 years; the game itself continued on for over 15 years more afterwards. The game had tens of thousands of players from all over the world. After sufficient achievements, players could also become developers (as in many MUDs) to help enhance the game. Systems and teams were in place to help new developers learn and to foster their projects. There were hundreds of developers who helped create a vibrant world with tens of thousands of rooms and dozens of unique player races, multiple classes and hundreds of spells, abilities and skills. The game itself, with all developer contributions, had over 1 million lines of code.

On top of the actual game itself, there were many social aspects to the best MUDs. Players and developers came from a surprising mix of backgrounds. There were students, retired persons, doctors, engineers; DeadofNight even had a chaos physicist and a rocket scientist (well, an aeronautical engineer). Multiple communication channels allowed for a wide variety of simultaneous and ongoing discussion options. Players could form or join adventuring parties to work together as a group. Players could also form clans and create clan halls, giving them a permanent base of operations. Users would often take breaks from their adventures and play games within the game including card games, board games, trivia, and others.

Unfortunately the underlying framework of MUDs did not keep evolving to survive into the age of always-connected smartphones with small screens, unreliable signal and different input methods. Taking a hobby game, no matter how popular, and converting it into a fully modern, multi device, game system requires time and resources. A successful ICO will move DeadofNight and other MUDs into the new age and build a bridge for the rest of the mudding world to cross that divide. While DeadofNight will continue to be a free to play game, micropayments and TURTL coins will be able to be used to enhance the user experience. Particular attention will be made to ensure the game does not become a pay to win experience and that TURTL coins are a stabilizing force rather than an inflationary force in the participating game economies.

Previously, DeadofNight's system (and similar LPMUDs) ran on a GPL driver which required the game to be entirely free to play. Successful funding would allow a new method to be used instead of the GPL driver. This would allow for microtransactions to be used as a support and profit making system. The actual game content has no restrictions (like most MUDs) and is the property of the DeadofNight project which is owned in turn by the developers. All previous game content can be used on and adapted to the new platform. The developers of DeadofNight (and likely other participating MUDs) will also reach out to the previous content creators to see if they are interested in working on new content and to expand the game with new capabilities. Once DeadofNight has been migrated, it will be used as the "model home" to demonstrate the way forward for other MUDs and their administrators.

WORLD TURTLE COIN AND MARKET

As the World Turtle Coin (TURTL) will be used to create virtual worlds it is named after the World Turtle, a mytheme of various mythologies[5]. The World Turtle was popularized by a wonderful author and builder of a fantasy world, Terry Pratchett[6]. The name World Turtle Coin was chosen because we will build our world on top of it and the rest of the world developers will follow. The TURTL coin will utilize the WAVES platform for handling our product. WAVES is an enterprise ready platform designed to handle crowdfunding while being fast, scalable and secure. This frees up the World Turtle developers and future world developers from making a new crypto token, allowing them to work on bringing forth a virtual world on a new messaging platform.

All 66 million TURTL coins are WAVES tokens and were pre-created and are non re-issuable, meaning no more TURTL coins can be created. If the ICO money goals are met and some pre-mined coins still exist, those extra coins will be retained by the company to be used for further development purposes. As the TURTL coin is on the WAVES platform it already exists on Windows, Mac. Linux, and Android and iPhone apps.

While the stated goal of TURTL coin will be to fund development of the World Turtle Market and its initial world, DeadofNight and other virtual world games, once the coin is released any coin holder can use the coin like many other crypto currencies. We do anticipate TURTL coin appearing on additional online services beyond the scope of DeadofNight and its World Turtle MUD brethren.

As an example to other world developers, TURTL coins will also be integrated into the DeadofNight game itself. As part of the World Turtle Market, this includes

- TURTL coins will be used for micropayments to buy gold and certain items in the game.
- TURTL coins will allow any player to create their own areas using area creator tools. This allows others players to see and adventure in the created areas. Depending on the player's vision the area may be a utopia, or lay claim to the lives of other adventurers.
- DeadofNight will allow TURTL coin holders to bid on programming contracts.
- TURTL coins can be used for user party and clan specific enhancements.
- TURTL coin holders can vote on which future development projects should be undertaken on DeadofNight.
- TURTL coin users can buy access to private areas only accessible to them and selected guests. These would range from areas to adventure in with increased rewards to quiet areas to socialize.
- A cross-game auction system will allow players to sell virtual goods to other players, this system will only accept TURTL coins. Some specialized goods may be usable in more than one virtual game, others will be for specific games.

THE ICO PROCESS

The World Turtle ICO will be handled with 2 cryptocurrencies. As TURTL is a token on the WAVES network, we will accept WAVES. As the ICO involves crypto currencies we will also use the original crypto coin, Bitcoin.

ICO participants will register at the website https://ico.worldturtlecoin.com

Participants will need to enter an email address and create a password. Email verification will be done to ensure the ICO participant can be reached. Each user will also have to enter a WAVES address for their TURTL tokens to be sent to once the ICO is finished.

When the ICO sale begins, those wanting to use Bitcoin will see a unique address for them to send their BTC. Those wanting to use WAVES will see a WAVES address to send to. With any ICO purchase, the website will show the number of TURTL coins the user will receive upon the completion of the ICO. The website will also have a running countdown clock and stats on all purchases.

The ICO sale will end when the maximum goal of $5 million USD equivalent is met, or 30 days pass.

The TURTL ICO will last for 4 weeks. During the ICO, TURTL coins will be sold to the ICO supporters with a value of $1 USD per 10 TURTL coins. The first 7 days of the sale will give all ICO participants a 20% increase of TURTL coins. $1 USD will receive 12 TURTL coins. After the initial 7 days, the bonus will be 10%, the price will be $1 USD per 11 TURTL coins. The third and fourth week the price will be $1 USD per 10 TURTL coins.

If the minimum $700,000 goal is not met, the ICO will have failed and all supporting funds will be returned to the participants. Upon a successful completion, the TURTL coins will transfer to each participant.

GOALS

Goal : $700,000 USD equivalent
- Full TURTL roll out - awareness efforts
- Convert 20 years of game assets and relaunch DeadofNight for the web.
- Allow TURTL coins to be used in-game
- Implement the World Turtle auction house and marketplace using TURTL coins

Goal : $1.5 Million USD equivalent
- All of the above, plus
- Release of Android and iPhone apps for smartphone playing of World Turtle games.

Goal : $3 Million USD equivalent
- All of the above, plus
- Release the platform created with the new DeadofNight MUD adaptation to other development teams using the systems to create their own stand alone virtual worlds. These worlds will also accept TURTL coins and participate in the World Turtle auction house and marketplace

Goal : $5 Million USD equivalent
- All of the above, plus
- Create API to allow stand alone apps to access in-game data, such as a recent chats dashboard app for your player's phones
- Publish example API game within a game APP (e.g. 4 in a row)

EXPANDED GOAL DESCRIPTIONS

Our goals depend upon the funding level achieved, the more funding the more goals that can be achieved.

$700,000 and above :

The World Turtle Coin will be using the WAVES platform which provides Windows, MacOS, Linux, Android and IOS wallets. Traditional services that build a crypto community such as faucets, signature campaigns, twitter bonuses, and forums will be utilized. Ongoing development updates will allow the community to know what is happening.

Moving the 20 years of game assets of DeadofNight to a modern service will take time and much development effort. Since the entire system will have to be reworked to run on modern networks and scale seamlessly, a new driver (the parser for the area and interface code of a MUD) will have to be designed and created from the ground up. Traditional MUDs require deprecated and specialized connection programs with no security (telnet) in order to be usable. This is a needless hassle and hindrance to gaining new users. The new games on the World Turtle platform will be playable in modern web browsers.

The game itself will allow players to use TURTL coin. There will be special shops allowing players to exchange TURTL for in-game resources or specialized equipment. Further, in-game contests will reward players in TURTL. These may be simple, such as the first player to collect a certain item. Or they may be more complex. As an example, over the course of a calendar year DeadofNight often had specialized quests… One occurred over the Christmas holiday where players would hunt down Santa and his 9 reindeer to win a prize.

$1.5 million and above :

All of the work described in the previous funding level's description will be delivered, along with smartphone apps to allow Android and iPhones to play the DeadofNight model World Turtle game. While the Web and smartphones are similar there are challenges because of screen size, different programming environments, bandwidth differences, intermittent connectivity and Human Computer Interface differences (hence stickers).

$3 million and above :

Along with all previous descriptions, there will be an additional goal delivered. There have been many MUDs and similar games over the years. Each virtual world had its own identity, atmosphere, and playing style. Most no longer exist because the game technology has not been able to keep up with user needs. This funding level will solve that problem for the MUD community. With additional funding, the ability will exist to use the World Turtle platform as the backend solution for additional virtual worlds. Each world will also use TURTL coins in some fashion to enhance the player's enjoyment and also expand the coin usage. MUDs came in many subtypes and many genres, including science fiction, fantasy, western, cyberpunk, steampunk, sex dungeon, low fantasy, gothic horror, etc. Successful funding would allow players to have a multitude of genres, play styles, and more to choose from.

$5 million and above :

All of the work in the previous funding levels' descriptions will be delivered. Also, DeadofNight and some other MUDs had many games to be played within the game. Often times players would sit around socializing and playing these games rather than adventuring. These included a variety of card games, board games and puzzle games. Another was a trivia service that allowed people to play trivia and chat with players in-game without actually being logged into the game, allowing dedicated mudders (some might say addicts) to stay always connected to their social group even when not connected to their game. Extra development funds would allow APIs to be created to allow developers to tie into a World Turtle platform based world for simple games or apps without requiring them to be logged in. Just a few possible examples include a universal chat application to talk to people both in and out of the game, scheduling for game clan activities, or allowing in-game mail to be accessed out of game.

ROADMAP

The following roadmap includes estimates of time frames and a brief description.

Concept Development : May - July 2017

- Determine the needs of the project, break the project up into funding levels, determine costs, write whitepaper.
- Establish the ICO procedure
- Create the digital token

ICO : August - September 2017

- Prepare for the ICO, publicize, do the ICO, handle all questions about the ICO

ASSET MINING : Oct - Dec 2017

- Evaluate and move 20 years of game assets to a new asset management system

WEB ROLLOUT : Oct 2017 - June 2018

- Create a new scalable game engine that allows the existing assets to be converted and used. Also create tools to allow new game assets to be created.
- Create the methods for using TURTL in-game, auctions, and player content creation tools.
- Once the basic engine and assets are deployed, Beta testing will begin to get community feedback.

MOBILE ROLLOUT : July 2018 - Dec 2018

Allow smartphone users to play the game. Also publish a game or app utilizing the in-game API to allow an additional smartphone app to interact with the virtual world in some way.

PLATFORM ROLLOUT : Jan 2019 - Apr 2019

Allow other developers to use the created backend systems to create their own virtual world. This will require a suite of administration tools that allows everything to be modified to the creator's needs. Original developers will work with an initial group of early adopters to ensure successful releases of these games to their players and the World Turtle market.

COST BREAKDOWN

A breakdown of costs by category associated with the project follows. Costs are projected for a total of a 2 year development cycle. While these are very basic, overly broad categories and corresponding budgets, this is to show overall how the company will be spending funds and is not a complete pro-forma budget as in a traditional business plan. This is a whitepaper for an ICO, not a business plan for an investment.

$700,000 goal and above costs :

The basic goal will have full time developers working full time for up to 2 years along with costs such as servers, bug bounties and basic operations. Also there will be some limited contract work, primarily some limited art assets.

- Developer Budget : $108,000 per developer, per year
- Infrastructure Costs (hardware, connections, etc) : $20,000
- 3rd party Assets (artwork, specialized contract development) : $5,000
- Bug Bounties : $5,000
- Operations + Legal : $22,000

$1.5 million goal and above costs :

Adding Smartphone usage will require additional developers who will focus on smartphones. Some of the backend will require additional development to meet the unique considerations of mobile devices. Utilizing a multi platform development product we can reduce overall client development needs. However each of our target platforms will present unique challenges and we are budgeting for contract work to meet those needs.

- Additional Staff Developer (1) : $100,000 per year
- Backend support for Smartphone : $100,000
- Android Client : $100,000
- iPhone Client : $100,000 (While we plan to use a multi platform product, testing and development needs will require bringing in additional developers and contract work for the 2 platforms)
- 3rd party Assets for Smartphone clients : $50,000
- End user support: $50,000
- Additional Infrastructure: $50,000
- Advertising : $50,000
- Bug Bounties: $40,000
- Additional Operations : $60,000

$3 million and above costs :

The goal to create a ready to go service for any other group or individual to start a new, modern, smartphone enabled MUD with the ability to tie in to the APIs and TURTL coin infrastructure. Also items, enhancements and services that are truly universal between all MUDs will be facilitated so players can benefit from World Turtle Coins in more than one virtual world. This will require more than a simple name change of a program to allow this to work as complete integration will be necessary.

- Additional Staff Developer (2) : $100,000 per year
- Additional Infrastructure : $125,000
- Additional Operations : $175,000
- Additional End User Support : $100,000
- MUD Developer Support : $100,000
- Bug Bounties : $50,000
- 3rd party Assets : $100,000
- Documentation for external developers : $50,000
- Contracts for new example areas : $50,000
- Additional Legal / contracts : $50,000
- Security Audits / advertising / contract work / testing / misc : $300,000

$5 million and above costs :

The goal of using the World Turtle platform as an Application platform will require further development work. This brings in added security concerns, backend service requirements, and the creation of example Apps.

- Additional Staff Developer (4) : $100,000 per year
- 3rd party Assets : $100,000
- Additional Infrastructure : $100,000
- Bug Bounties : $50,000
- Additional Operations : $100,000
- Additional End User Support : $50,000
- World Turtle API Client Support : $100,000
- Additional Legal / contracts : $50,000
- Documentation for World Turtle API clients : $50,000
- Example of API tied to new MUD : $75,000
- Security Audit / advertising / contract work / testing : $500,000

VALUE PROPOSITION

The developers intend to create a platform and methodology to take an old time, free to play game, and improve it to include micropayments, an improved human computer interface utilizing stickers, and make it playable on the web and smartphones.

TEAM BIOS
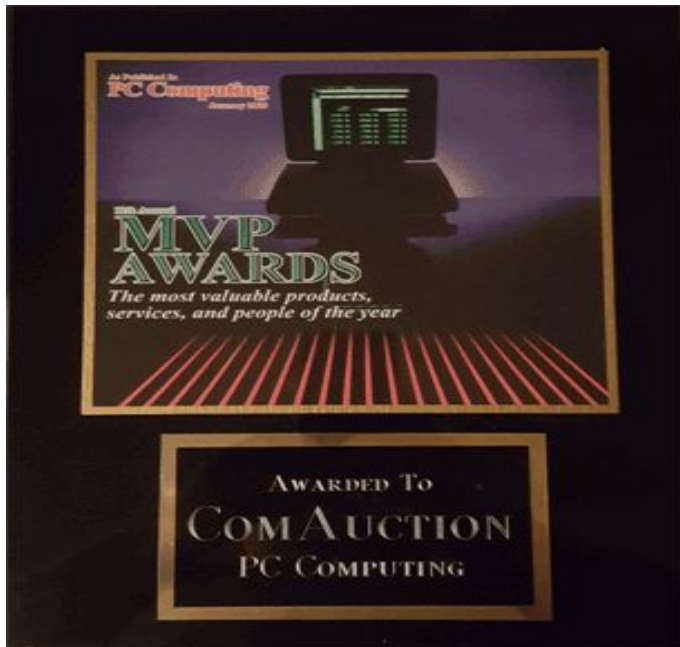
This is a proven team. All have worked together on successful projects before. The two Keiths have worked on projects together since their college days at engineering school in the early 90s. While they both enjoyed running DeadofNight as a hobby, they also worked professionally together on a local Internet Provider which grew into a regional and then national Provider. During this time they hosted numerous MUDs through the Service Provider.

They also co-founded a business oriented auction service during the dotcom era, which was a PC Computing Best of the Best service. They both discovered Bitcoin in 2011 and have been involved in various crypto projects since.

With a successful ICO the main developers would focus full time on the DeadofNight project.

Keith Kelley is a once and future technologist who was quite enjoying his early retirement writing his little books until this project came along. Keith capped off an 11 year career in library technology by writing the book on the subject. His 21 year technology career included working for some of the early internet providers, software development and project management and budgeting for all manner of businesses from manufacturers to dotcoms both full time and as a consultant. He hadn't planned on coming out of retirement until his former colleague came to him with this intriguing idea.

Keith Pitcher has been involved with Internet based businesses for over two decades. In early 1998 he founded LocalLink, an Internet Service Provider. Soon afterwards he co-founded ComAuction, a business to business auction site. ComAuction had a diverse range of clients ranging from large multi nationals such as GM and Whirlpool to small local businesses. This effort lead to ComAuction being a PC Computing Best of the Best in 2000. Due to his work at ComAuction, Keith was an Ernst and Young Entrepreneur of the Year 2000 Finalist. After he sold LocalLink in early 2007, Keith has focused on a variety of development projects, including a number dealing with crypto currencies.

Jason Crome is a software and business veteran, with a career spanning more than two decades. As a cofounder of DEVNET, Inc. in 1997, he and his business partners grew their company from nothing into a nationally-recognized provider of software and service for local government. His software at DEVNET has calculated billions of dollars in property taxes for millions of properties across 10 states and one Canadian province. Since "retiring" in 2015, Jason has worked as a developer for HAProxy, as well as a contractor for an MMORPG. In the days of DeadofNight, Jason ran a sister MUD, and collaborated with Keith and Keith on a number of occasions

The developers will be paid a salary for their work. They will not receive any TURTL coin bonuses or access any excess coins held by the company until each of the 4 major milestones are met. As the ICO process will leave the company with a minimum of 3.5 million TURTL coins, the developers will split a 1/2 million TURTL coin bonus per milestone.

DISCLAIMER

Beyond the developers named, World Turtle Coin has not been endorsed by any other company or person mentioned or linked to in this whitepaper, including but not limited to Android, Github, IOS, Jessica Mulligan, Linux, MacOS, Mario, Minecraft, Newzoo.com, NES, Nintendo, Pokemon, Simcity, Sims, Slice.com, Terry Pratchett, Venture Beat, WAVES, Wikipedia, Windows.

The charts and data provided are for comparison purposes only. World Turtle Coin has no projections for future user base or microtransaction amounts.

This ICO is not meant to be a security or a financial investment. All coins are a pre-purchase of tokens which will be usable in games currently under development. Purchasing of a World Turtle Coin will not give any ownership or profit sharing of the company.

The roadmap and milestones given are best estimates but are not binding. The developers are committed to a good gaming experience which may cause milestones to be missed.

There is no assurance that any time in the future World Turtle Coins may be usable for anything other than in-game tokens. As the game will be an online service, utilizing WAVES which is an online blockchain service, there is a possibility that flaws may be found in these services which may cause outages. Malware, viruses, and computer failure may allow TURTL coins to be stolen or lost from the end user's computing devices.

SOURCES

[1] Mulligan, Jessica; Patrovsky, Bridgette (2003). *Developing Online Games: An Insider's Guide*. New Riders. p. 444. ISBN 1-59273-000-0. 1980 [...] Final version of *MUD1* completed by Richard Bartle. Essex goes on the ARPANet, resulting in Internet MUDs

[2] Newzoo.com
https://newzoo.com/insights/articles/the-global-games-market-will-reach-108-9-billion-in-2017-with-mobile-taking-42/

[3] VentureBeat.com
https://venturebeat.com/2017/05/01/ios-user-acquisition-costs-soar-in-march-while-android-costs-dip/

[4] Slice.com
https://intelligence.slice.com/hardly-pocket-change-mobile-gamers-spend-an-average-of-87-dollars-on-in-app-purchases/

[5] Wikipedia
https://en.wikipedia.org/wiki/World_Turtle

[6] Wikipedia
https://en.wikipedia.org/wiki/Terry_Pratchett.

Whitepaper last edited on Sep 6, 2017