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## Abstract

According to CoinMarketCap.com, the aggregate value of all cryptocurrencies on the market stood at \$17.7 billion in 2016. However, from January to December 2017, with about 1,350 cryptocurrencies on the market, the combined value hovered around \$503 billion. Well, these growth spurts in crypto transactions have culminated in the evolution of an entirely new economy. Moreover, the new economy has created hundreds of thousands of new jobs, leaving many crypto traders stinking rich in a New York minute. As a consequence, in our contemporary business environment, organizations are increasingly compelled to transition to virtual money as a way of running a 21st-Century organization.

Well, coming from the dynamic SaaS industry, TowerBee is committed to delivering unique online services that help clients to manage their businesses. TowerBee deploys innovative software packages to meet the ever-changing demands of its partners and clients, offering everything in the cloud and much more. With a state-of-the-art research department, TowerBee prides itself on being in the vanguard of using cutting-edge IT resources to ensure that its clients get the most out of the SaaS industry. As a company driven by some of the best brains the sector has on offer, TowerBee goes farther to experiment in critical areas other industry key players fear to venture into. And the result, a roaring success story!

So in the quest to stay way ahead in the sector and key into the booming crypto industry, TowerBee is transitioning to Blockchain technology with the introduction of its token, TowerBee, in the crypto market. Well, underlying the distributed ledger and secure platform of Ethereum Blockchain, the TowerBee token offers a lot of exciting features synonymous with Ethereum as this paper will unravel all there is to know about it.

## Introduction

As cryptocurrency or virtual currency continues to make inroads on the business world, more and more organizations around the world are increasingly compelled not only to accept it as a medium of payment but also to develop their virtual currencies. Consequently, organizations are not just floating their versions of cryptocurrency, but they are also introducing a unique feature to their crypto to make it unique.

Ever since the advent of the first cryptocurrency, Bitcoin, in 2008 by a pseudo name, Nakamoto Satoshi, the market has witnessed lots of cryptocurrencies from many different companies. According to [Wikipedia](#), as at January 7, 2018, about 1,384 cryptocurrencies have been launched by various organizations around the world. Moreover, this growth is on a steady rise as organizations now see the need to launch their digital currencies, remodeling the way their products and services are paidfor.

Apart from apparent enthusiasm and commitment among crypto market key players (such as tech developers, consumers, financial institutions, regulators, and merchants) toward developing the Blockchain technology-enabled currency, cryptocurrency, the features of cryptocurrency itself have necessitated its unprecedented growth rate. Indeed, cryptocurrencies have been increasingly famous for being able to solve some of the flaws bedeviling the current global financial industry.

After Bitcoin launched in 2008, the next crypto in line to launch was Ethereum. Ethereum Blockchain stood out for some of the features it delivered which lacked in Bitcoin. Much as it launched some six years after Bitcoin, Ethereum Blockchain has become as crucial as Bitcoin because of those unique features in question. Some industry pundits even argue that Ethereum is more critical than Bitcoin – though less prevalent. In any case, Bitcoin and Ethereum share similar features, but they also vary in functionalities. The significant difference between the two blockchains is that while Bitcoin is designed as a means of payment, Ethereum allows developers to create and run their applications as well as support smart contracts. This function of allowing developers to create their applications resulted in Ethereum underlying many different platforms including TowerBee.

## Ethereum Blockchain and ERC-20

Well, Ethereum is a distributed blockchain network that focuses on running programmable code of decentralized applications. On Ethereum Blockchain, users earn Ether, unique code that enables users to pay for computational resources for running their application, but this time, they may also earn TowerBee token. Indeed, TowerBee token will also feature ERC-20 token standard, meaning that the tokens can be bought, sold and traded on exchanges. ERC-20 means **Ethereum Request for Comments** while “20” is the unique proposal ID number.

Furthermore, ERC-20 defines the algorithms that an Ethereum-programmable token must stick to, to be compatible with other tokens on Ethereum and function properly in a more extensive Ethereum platform. With ERC-20 compatibility, users of TowerBee platform will understand how to benefit from our token on Ethereum Blockchain. Indeed, offering an ERC-20 wallet means that it is a win-win situation for all the traders of our token, and investors of our ICOs.

### Ethereum Virtual Machine

As a distributed ledger, Ethereum programs are processed by thousands of nodes connected to the network. Ethereum Virtual Machine (EVM) reads and executes bytecodes, which are compiled contracts written with a smart contract-specific programming language. Contracts are on-chain, Ethereum-specific binary format. In other words, contracts are written in Ethereum high-level language and are compiled using EVM compiler. Furthermore, apart from having a copy of all the transactions in the network with smart contract history (to be discussed shortly), every node also has EVM which it uses to execute contracts. Whenever a user carries out a transaction, all the users must come together to agree, thus validating that action. The mechanism of validating an action is called Proof of Work consensus mechanism.

## Ethereum Blockchain and Smart Contract

Smart contracts are contracts written in code or are a name used to describe critical programs in Ethereum Blockchain which serve as the “engine” for facilitating transactions on it. They outline the relationship with programmable codes. Smart contracts perform certain instructions they are programmed to carry out. With a simple instruction executed by smart contracts, users on the Ethereum Blockchain can send TowerBee coin to anyone. Sometimes, when transfers are made on Ethereum, they are just not honored. The reason is that a fee is required before such transfers are executed, and the fee is determined by smart contracts; TowerBee is no exception here. Smart contracts are typically programmed as “if-then” statements used in simple programming. Upon meeting certain conditions of a contract, smart contracts carefully execute the terms of such contracts.

Smart contracts are the essential components of Ethereum Blockchain. The primary role of smart contracts is to create an enabling environment for two anonymous parties to do business with each other without third-party interference. TowerBee offers smart contracts that guarantee system transparency and high speed (devoid of latency). The smart contracts will also ensure the anonymousness and safety of TowerBee wallet holders. Moreover, TowerBee smart contracts run precisely as programmed without censorship, fraud, and downtime. Every contract and program on Ethereum has an Ethereum gas, which is the amount of computational power of programs. Ideally, the higher the Ethereum gas requirement, the more TowerBee tokens or Ether that will be needed for such transactions.

## Proof of Work Consensus Mechanism

For TowerBee transactions to be validated on the Ethereum Blockchain, there must be a consensus mechanism among the nodes in the system. Consensus mechanism is the framework used by the network node to agree upon the next block of transactions to be added to the network. Of the five consensus mechanisms used in Blockchain, Proof of Work (PoW) stands out as it is applied in many blockchains. The observation is understandable considering that Proof of Work is the first ever consensus mechanism in Blockchain technology as it is the model used in Bitcoin.

Pioneered by Satoshi Nakamoto, Proof of Work mechanism tasks the nodes to work collaboratively to maintain the security of the system through a process known as mining.

Mining is a technique used to solve a mathematical puzzle (known as hash) in the system which in turn leads to a reward, establishing a new block of transactions in the blockchain. Solving hash is an iterative process, and as a result, it consumes so much computational energy. In the course of trying to solve the puzzle, many computers get involved, thereby making the process even harder.

In other words, PoW sets some conditions (or hash function) that nodes must have to announce their conclusion about propagated information. Moreover, each of the participants can independently verify such conclusions. If a user submits false conclusion to manipulate the system, the hash function will reject such conclusions as these conclusions can easily be verified. The system now rewards the node that publicly verifies the valid conclusion.

So, the process of the node striving to verify and announce the conclusion is called mining. The system rewards the node for working, and the Proof of Work is announcing the verification of such valid conclusion. Proof of Work (PoW) system is used in TowerBee platform.

## About Towerbee

Founded to be a one-stop solution to SaaS (Software as a Service) related problems, [TowerBee](#)'s team of experts works round the clock to stand out among its competitors. Indeed, at TowerBee, we offer a wide array of software services, tailored to help our clients meet their business needs. As a result of endless innovative research and dint of hard work, TowerBee has carved a unique niche for itself in the cloud computing industry. Our services include:

- HR Software Solutions (for managing details of employee's work lifestyle),
- Customer Relationship Management (for effective management of business leads),
- Business Email (helps to set up clients' custom-made email ids for their domains),
- Contact Manager (for online management of customers' contacts),
- Text, Audio and Video Chat (for connecting work teams for effective group communication),
- File Manager (for sharing both public and private messages within the organization),
- Team Calendar (for setup and management of personal and shared calendar in the organization),
- All-in-One (is a bouquet that integrates all the services mentioned thus far in one comprehensive package).

Because we understand our clients, TowerBee works within their budgets to deliver topnotch software packages without quality compromise. With our services, we take care of the software needs of our teeming clients while they focus on other fundamental areas of their business. Our software packages are reliable and affordable.



## Benefits of Doing Business with Us

At TowerBee, our clients have learned to bank on us to provide high-quality services that meet their business requirements. Apart from getting the most out of the services readily available on the SaaS market, our clients also enjoy specific benefits which come with our services. These benefits include:

- **Affordability:** Regardless of our clients' budgets, we ensure that we go out of our way to deliver custom-made software packages to our numerous clients, making us a leader in the SaaS industry. Indeed, understanding the needs of our clients and fine-tuning our products to meet their business needs without recourse to high quality - even with a tight budget - has propelled us to rank among the market leaders in the SaaS industry
- **High-quality Products:** Aside from delivering affordable services to our clients, we also ensure that our products and services are of high quality. With a team of gurus committed to making an indelible mark in the SaaS industry, TowerBee ensures that the products we offer are some of the best in the IT market
- **Security:** The most critical factor that either makes or mars a cloud computing firm is security. Indeed, in a world where cyber attacks have been the order of the day, CEOs of blue-chip companies want a reliable and secure platform to drive their IT department. At TowerBee, we offer guaranteed, tamper-proof services because we are a team peopled with programmers with many years' industry experience
- **After Sales Support:** Furthermore, some of our products come with a warranty. This step is deliberate as it is a way of gaining customer confidence and loyalty. In addition to offering services that have warranties, we also offer after-sales support service. At TowerBee, we do not just do business with our clients, but we also build relationships with them by ensuring that we deliver after-sales support even after the expiration of the warranty. Post-warranty services are, however, provided under certain terms and conditions. Our helpdesk works 24/7, taking note of customers' complaints and giving them the attention that they deserve
- **Turnaround Time:** At TowerBee, one of the factors that apparently set us apart from the herd in a big way is our capacity to deliver clients' projects with fantastic turnaround time. With a team of professionals, willing to give the best of our know-how to our client, we prioritize clients', thus ensuring we beat each milestone's deadline as well as deliver the entire project in record time
- **Discount:** As we are transitioning the payment of our services via cryptocurrency, there is good tidings for our clients. Well, the good news is that the payment of our services with our token will attract juicy discounts. These discounts to be enjoyed by our prospective clients will be determined by the management of TowerBee.

## Understanding the Platform

To enjoy all the exciting and affordable SaaS services that TowerBee offers, our clients need to visit our [website](#) to understand the evolution taking place in our company. Yes, TowerBee is transitioning to Blockchain technology. The reasons for this move are to key into the dynamics of the booming crypto world as well as run a certain 21st-Century company.

Our decentralized application will be called TowerBee while its token will be known as TowerBee token. The tokens are available on our [website](#) for all interested clients and enthusiasts to acquire. On TowerBee, while smart contracts define how operations are executed, TowerBee tokens (cryptocurrency) are used to pay for services that we offer. With TowerBee token, our website will become one of the earliest SaaS companies to accept cryptocurrency as a form of payment. This will enable individuals and institutions to pay for services by using the TowerBee token. Indeed, we are always the trailblazer.

## Features of Towerbee Token

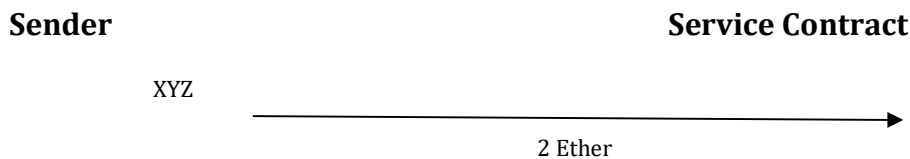
TowerBee tokens can be tracked on Ethereum Blockchain. The TowerBee tokens will have some exciting features as discussed below.

- **Digital Assets:** The TowerBee tokens are earned, traded, purchased and sold on TowerBee or any other exchanges for that matter. Besides, it is secure, immutable, and cannot be duplicated. Most importantly, they can be used to pay for our products and services.
- **Complete automation:** Running on a blockchain that supports smart contracts redefines the way specific activities happen. These TowerBee smart contracts provide the much-needed automation, recording and trading of all the results. In precise terms, every purchase, trade or sale is automated. Moreover, the resultant effect is that the fears that earnings can be manipulated are allayed.
- **External exchange:** As a token that complies with ERC-20 compatibility standard, TowerBee tokens can be purchased, sold and traded on the world's leading exchanges.
- **No third-party interference:** Furthermore, another striking feature that TowerBee token offers is complete independence. There is no intrusion of third parties, showcasing a truly decentralized function. Because intermediaries are completely eliminated in TowerBee, thus acquiring and transacting in TowerBee tokens are a lot cheaper than it would have had third-party interference existed.
- **Swift Transactions:** When a client orders the tokens, they are supplied at once without delays. Whether the client is paying for it with fiat currency or another cryptocurrency, all we need do is to confirm the transaction, which happens in a matter of minutes.
- **Security:** Also, clients who have purchased TowerBee tokens do not have to worry about theft as TowerBee runs on a tamper-proof platform of Ethereum. Indeed, an unauthorized person can only have access to your funds if you release your wallet details to them.

## How a Client Pays For Services on Ethereum

One of the critical activities that take place on Ethereum is the on-chain payment of services (say Dapps development). Below is a simple explanation of how Ether is used to carry out such transactions. Let's say that the client wants to place an order for service. The service is stored on Ethereum as XYZ. To purchase the service, the client will have to pay with 2 units of ETH. So, the first step the client will take is to send 2 ETH, representing the price of the XYZ service. Well, this is the first transaction, and it is represented thus:

Figure 1.0



In figure 1.0 above, the client sent out two units of Ether to purchase the service, XYZ. The transaction is sent to a service contract to execute it. When the service contract honors the transaction, it will appear thus:

```
Function CRM1 (unit256 payload) public payable {  
  
    require (msg.value == 2 Ether);  
  
    info[msg.sender] = payload;  
  
}
```

**Explanations:** The function line, which is the first line, confirms that a client is sending 2 units of Ether while the second line stores the payload.



## **Towerbee Token Initial Coin Offering (ICO)**

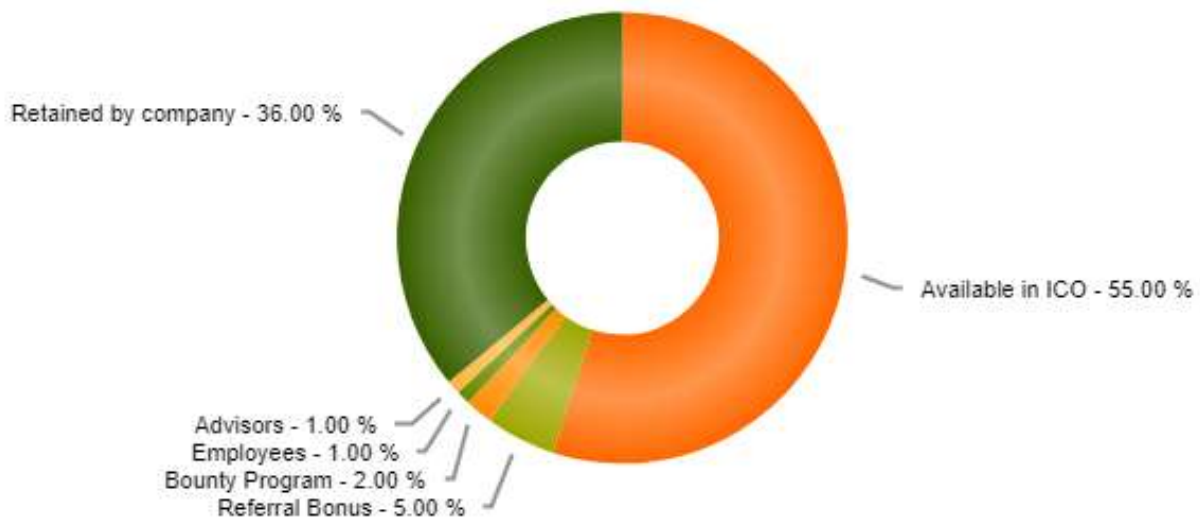
Funds will be raised through Initial Coin Offering (commonly called ICO) to finance TowerBee. Technically, ICOs are a crowd-funding centered on digital currency – this time, TowerBee token. This venture will give all the enthusiasts, who have yet to acquire cryptocurrency to do. During TowerBee ICO, investors and enthusiasts may use ETH (Ethereum) to buy TowerBee tokens. Just as we said earlier, TowerBee tokens contain a certain amount of assets, and it is accepted both on our platform and other exchanges.

Moving forward, our team of experts is peopled with financial analysts, engineers and advisers who have distinguished themselves in their various fields. With the funds received from ICO, we plan to expand our offering to include many more services (all as SaaS) such as Crypto Currency Payment Gateway, Inventory Management, Survey, etc., thus boosting the wide range of services we offer our highly esteemed clients. Our team of developers is planning to supply a total 500 million tokens for the entire venture while 55% of the total supply will be made available for the ICO, representing 275 million tokens.

## Towerbee Token Distribution

In figure 2.0 below, the diagram shows the various components that will be allotted different amounts of tokens. This project has been perfected not only to become very successful but also to meet the aspirations of all investors.

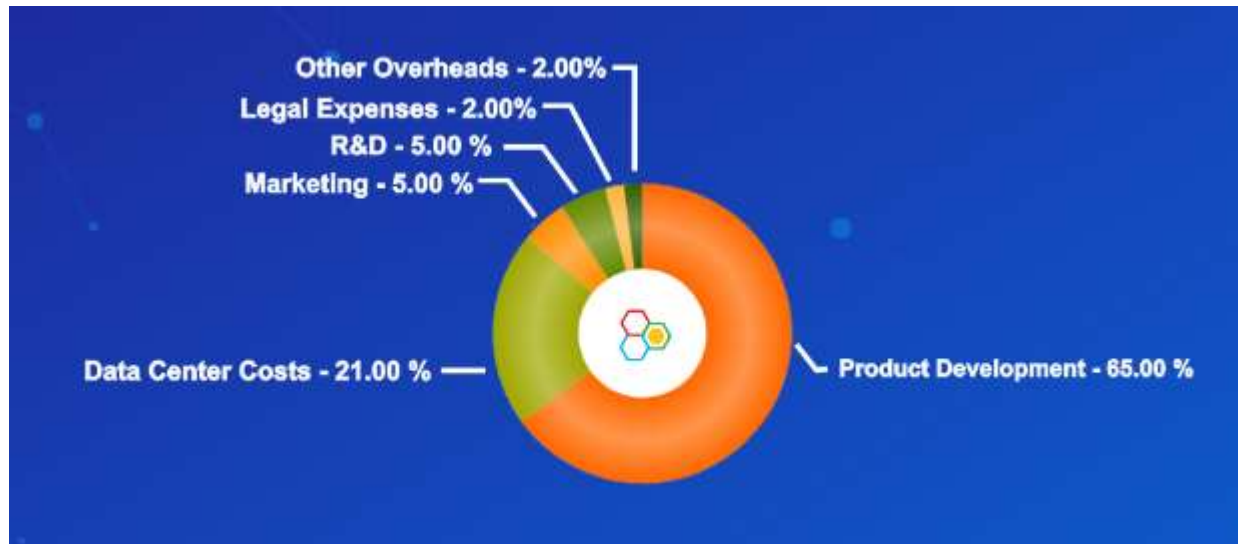
Figure 2.0 Token Distribution



- 55% - Available for sale in ICO
- 5% - Referral Bonus
- 2% - Bounty Program
- 1% - Employees
- 1% - Advisors

In figure 3.0 below, the diagram shows the various components that will be allotted funds received in ICO. The focus has been on timely completion of project and to meet the aspirations of all investors.

Figure 3.0 Allocation of funds



From the foregoing, we can infer that TowerBee tokens will be distributed according to the following arrangement:

- 65% - Product Development
- 21% - Data Center Costs
- 5% - Marketing
- 5% - Research & Development
- 2% - Legal Expenses
- 2% - Other Overheads

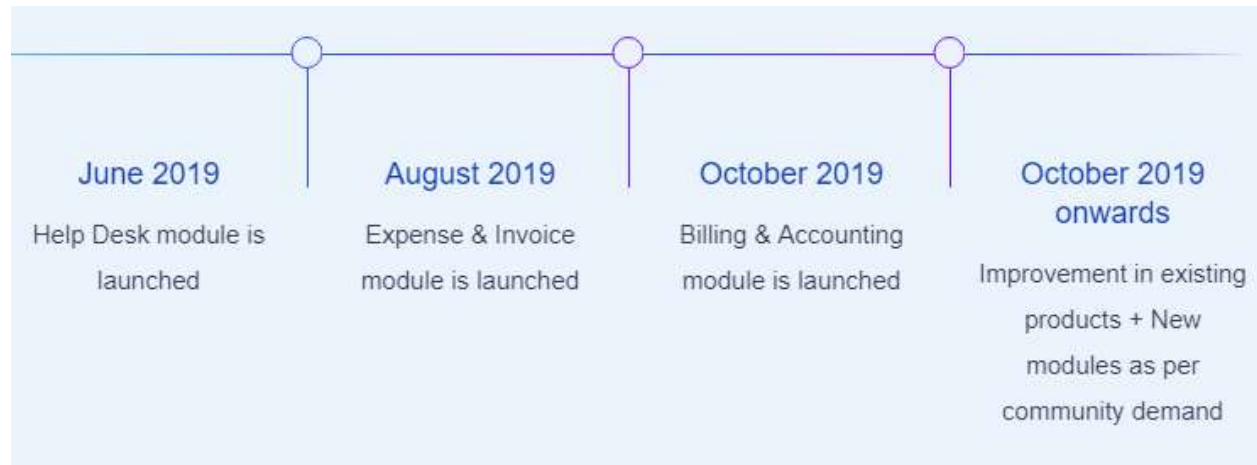
Again, TowerBee tokens are used on our [website](#) to pay for the services we have for our clients. Moreover, the good part is that there will be discounts applicable when services are paid for with TowerBee tokens.

## Roadmap

The roadmap of TowerBee is detailed as follows:







## Towerbee Token Uses

Apart from the TowerBee token being traded on various exchanges, the following are the ways it can be used on the TowerBee platform.

### **1. Payment for transaction fees of crypto currency payment gateway**

TowerBee plans to launch world's biggest crypto currency payment gateway which will accept 500+ crypto currencies with a single API. The default transaction fee will be 0.01%, which is the lowest fee presently being charged by any service provider. This fee will be reduced by 50% to 0.005% when fees are paid by using TowerBee token.

- When buyer pays using TowerBee (TBE) token, the 50% discount is automatically applied on the transaction fee.
- When Buyer pays using any of other 500+ cryptos, the 50% discount will be applied if the seller has TowerBee (TBE) token in his account.

### **2. Payment for services offered by TowerBee.com and other partner websites.**

TowerBee.com already accepts ETH and few other crypto currencies as a form of payment. The TowerBee token will be added to the website as a form of payment latest by 01 Sep 2018. Paying for services by using TowerBee token will attract steep discounts as per the below schedule:

- 01 Sep 2018 - 28 Feb 2019: 25% discount
- 01 Mar 2019 - 31 Aug 2019: 35% discount
- 01 Sep 2019 - 01 Mar 2020: 50% discount
- Beyond March 2020 – Will be decided as per feasibility keeping in view the interest of TowerBee token holders.

## Conclusion

In conclusion, we can recapitulate on some of these cogent points.

- TowerBee token offers a rare opportunity to all enthusiasts who wish to benefit from the booming crypto industry by delivering a platform that guarantees user-friendliness. "In five years' {time} if anyone still uses fiat currency, people will laugh at them," - Tim Draker, an American venture capital investor, said about fiat currency. Indeed, this is a wake-up call for all enthusiasts.
- At TowerBee, we pride ourselves on having a team of tech engineers, advisers and outstanding crypto-market analysts who have distinguished themselves in their various fields. With their wealth of experience, TowerBee's team guarantees a platform that is secure with round-the-clock accessibility.
- Boosting the ERC-20 standard compatibility means that TowerBee token can be bought, sold and traded not only on our platform but also on standard exchanges around the world.
- As you already know, acquiring our tokens and using them to pay for services on our website attract mouth-watering discounts.
- During TowerBee ICO, investors and enthusiasts may use ETH (Ethereum) to buy TowerBee tokens.
- An investment in our ICO is a smart business choice as our experts promise not only to deliver a platform devoid of cyber attacks, but also one that will stand the test of time. [So, join us today!](#)

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