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Liberating Currencies

# AVESTA

Scalable, Fast, Secure and Private

Avesta (A) is the key to implementing cryptocurrencies in real life, making it easy for people and enterprises to manage their own financials, and overall setting a new crypto-standard.



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# AVESTA New standard for crypto currency



AVESTA IS THE KEY TO IMPLEMENTING CRYPTOCURRENCIES IN REAL LIFE, CREATING THE MISSING CHAPTER, SETTING A NEW CRYPTO-STANDARD AND MAKING IT EASY FOR PEOPLE AND ENTERPRISES TO USE AND MANAGE THEIR OWN FINANCIALS.



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## Executive summary

Our mission is to make cryptocurrency easy-to-use and accessible with an all-in-one platform.

While promising, cryptocurrency is still fairly inconvenient for most people. Paying at a cash register, moving money, and exchanging between fiat and cryptocurrency are all still either complicated or impossible in today's crypto-marketplace. We aim to simplify this, hoping to spark a revolution in cryptocurrency that leads to mass adoption and an environment where cryptocurrency is used at point of sales.

Born out of a collective 30 years in cryptocurrency, our team possesses an unparalleled understanding of the problems facing the industry today. As a member of the growing cryptocurrency community, we have built a solution to cater not only to enthusiasts, developers, and investors, but also to people who have found the cryptocurrency challenges too immense to participate.

Powered by the Avesta blockchain and accessible through the Avesta wallet, Avesta technologies will liberate cryptocurrency from the bounds of complication and inefficiency.



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## Market Opportunity

According to a study by the University of Cambridge, “The current number of unique active users of cryptocurrency wallets is estimated to be between 2.9 million and 5.8 million.” Either way, it’s a figure that represents less than 0.1% of the world’s population.

Though the full growth potential of the crypto-markets clearly remains largely untapped, the current market capitalization of all cryptocurrencies totals approximately \$141 billion.

The growth potential of the cryptocurrency world is evident. If the global market share of blockchain technologies expands to just 2% of the world, that would result in a multi-trillion dollar industry.

After 30 collective years in the crypto-industry, we are confident we have identified the problems that have held back blockchain and present a solution in Avesta that would solve these problems and expand cryptocurrency to its natural height.



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## Problems with current crypto currencies

We believe there are five major challenges that need to be tackled in order to pave the way for cryptocurrency mass adoption:

### 1. Not User Friendly

The world's curiosity towards cryptocurrency grows. Reputable media outlets have started to report on the progress of Bitcoin and other cryptocurrencies. However, while the cryptocurrency community has steadily grown, the fact remains that we are still in the early stages of expansion. And mass adoption will not happen unless blockchain platforms develop and integrate with retailers, eventually allowing to pay with cryptocurrency in a physical store as well as online.

The current payment processes with cryptocurrencies usually requires some degree of technical skill and understanding of security. Further, consumers are asked to place their trust in a system which unlike anything they may have previously used. We believe curious and qualified people are turning their backs on the crypto-markets due to these inconveniences.



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## 2. High barriers to Entry

As with many promising but slowly-progressing industries, there exist barriers to entry that businesses and individuals alike deem too demanding.

On the business side, IT companies and big corporations that want to get involved in blockchain and cryptocurrency encounter various hurdles, some real, some perceived, before they can really get started.

First, many companies are afraid to get involved in a relatively unregulated technology that, in the minds of the owners and CEOs, could endanger the business's reputation. If they get over that hump, they run into a second hurdle that is very much real: Experienced blockchain engineers are few and far between.

This happens every so often in the tech industry. Five years ago, the job market was flush with openings for data scientists and big data analysts. Like with cryptocurrency today, the field was so new that qualified candidates were scarce.

### **Avesta for Everyone**

Avesta uses account numbers instead of tokenized addresses. By introducing account numbers which are like phone numbers or bank account numbers people can easily make transactions and keep an address book of favorite account numbers. This will also allow users to use Avesta Instant Messenger (IM) and Voice over IP (VOIP).

It uses the same login for the Desktop wallet, Mobile wallet, and Web wallet.

This will take away hurdles of difficult cryptocurrencies and allow access for other cryptocurrencies and fiat currencies to be stored and used.



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### **Avesta for Developers**

Avesta provides a framework to build Decentralized Applications (DAPP) on the blockchain.

Avesta comes with full API support for Developers and users to use the blockchain functionality right from the Avesta wallet or web-platform.

Avesta takes away the limitations for users and developers to create and use applications on the blockchain. This will bring in fresh ideas and solutions to the global industry. Example: Micropayments, In-App or mobile purchases, subscription models, marketplaces, and e-commerce and point of sale solutions.



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### 3. Confidentiality vs Transparency vs Utility

Cryptocurrencies and blockchain are inherently open. For the sake of transparency, this is usually a good thing. In the current marketplace, however, that transparency comes at a cost: the reduction of confidentiality and anonymity.

In general, consumers do not like being tracked. Those hoping to preserve transparency and anonymity sacrifice a third thing: utility. At the moment, anonymity and utility are at odds because most anonymous cryptocurrencies use either very long hashes or require the user to maintain a separate account. Avesta looks to preserve all three with our layered blockchain approach.

Another issue is our nature to forget. People lose their account credentials, private keys, etc. There is no way now to recover a lost account and those lost coins still remain in the ecosystem unused.

Also for mining and saving cryptocurrencies it should be simple for users to use different wallets, or need accounts at exchanges to store coins.

#### **Avesta's Solution:**

Privacy and utility is a concern online and especially in cryptocurrency. For this reason, Avesta has used the best and most practical ways to secure transactions for its users to use the best anonymity tools available. Users can have untraceable and anonymous transactions without having to cope with a difficult transaction system.

It is easy to lose your password to private keys. That's why Avesta provides an inheritance feature. In real life, the lost account is forwarded to the 'heir' of the account holder. This can be children, close family, or friends. When the account holder doesn't have an 'heir' set, the account can be re-issued by Avesta and the coins held by the account will return back in distribution by releasing the currency back to the miners.

This is all done by integrating powerful smart-contracts in the blockchain, making it easy for every user to have a failsafe.



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One of the most important features making Avesta the perfect platform for your crypto-experience is the smart-contract user interface. Avesta will have a wide range of smart-contract templates varying from sales, invoicing, tokens, and other features. It will be as easy as a few taps or mouse clicks.

## 4. Slow Speed and Security

### **Block speed**

Blockchain and the proof-of-work cryptocurrencies that lay atop them are built to be quite secure. The technology is built on digitized blocks, which put simply are transaction confirmations. The more blocks in your transaction, the more secure it is.

Thus far, however, this security has not lent itself to the speed necessary to be relevant in today's global marketplace. Block speed must accelerate for this to happen.

For example, Bitcoin's block speed is 600 seconds on average. Waiting ten minutes for a transaction confirmation before a barista could even start making your mocha would be frustrating for everyone involved. Scaled all the way up to financial institutions, where transactions are measured in microseconds, the problem becomes evident.

### **Avesta's Solution:**

To have a fast confirmation but also a secure transaction, Avesta has created a lightning-fast blockchain of its own, which is more than 60 times faster than Bitcoin. This will allow for direct point-of-sale payments and direct payments between accounts.

Most cryptocurrencies have a confirmation time of several minutes. This means it is not possible to run point-of-sale or shop payment transactions directly on the blockchain. Avesta's blockchain confirms these transactions within seconds. We tailor-made a blockchain service specifically to allow such point-of-sale transactions.

We accomplished this with a literal multi-layered approach. We've separated the blockchain into a verification layer and a transaction layer. The former is where the mining happens, where miners work together to solve the mathematical equations necessary. The transaction layer acts as a public ledger, the way cryptocurrency was intended to act, but without the millions of proof-of-work actions slowing it down.



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## **Mining**

Miners play an important role of securing the blockchain by solving a mathematical equation to solve and confirm a block. The work delivered by miners is done in the form of hardware and electricity costs. This ensures a decentralized system and also makes it difficult and costly to perform a 51% attack.

However, miners are encountering growing disincentives to get involved or grow their operation. The intensely competitive model can leave smaller miners out in the cold, not to mention the incredible amount of energy that goes into solving each block. Most of that energy will never pay off.

### **Avesta's Solution:**

By creating a node consensus mining reward system, Avesta introduces a revolutionary way of mining without pools. Instead of all miners and pools competing, Avesta has developed a way to have all miners working together, giving each miner a fair share proportionate to their contribution. This method prevents so-called orphaned blocks or the "uncle blocks" of the Ethereum-based cryptocurrencies. This also prevents unnecessary inflation of currency.

These solutions work in concert to provide a rapid and secure blockchain network.

## **Double spend**

Slow block speed causes yet another problem: the double spend problem. If a transaction isn't confirmed in the blockchain, it's possible the currency has already been spent. What happens then is that the same coin will be confirmed by the network, but the one that occurs in most blocks will become truth. Usually meaning the one that has the largest transaction fee.

### **Avesta's Solution:**

Avesta has blocked double spending at both the user and blockchain end. The rapid block speed inherently renders this nearly impossible but even if that weren't enough, accounts are checked via the wallet and the node to guard against double spend.



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### **51% attack**

This is a risk current Proof of Work cryptocurrencies face. It is possible for a single entity or party to control more than 51% of the global solution rate of blocks. If that happens, that group can alter the transactions and even affect the blockchain, tilting the market towards their pool. This is a huge risk, especially once large companies start mining.

### **Avesta's Solution:**

With miners and pools working together instead of against one another, preventing an external party attacking the network and changing the blockchain, the notion of the 51% attack becomes obsolete.



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## **5. Legality for crypto currencies**

At the moment legality is a difficult issue because the laws are different in each country. A cryptocurrency user is never sure because governments like to change laws and regulations regarding to cryptocurrencies.

### **Avesta's Solution:**

By partnering with legal entities around the world, Avesta will launch the development of a legal framework for wider adoption of blockchain technologies and payment solutions.



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## Comparison

Avesta will offer great user features and experiences and great user compared to other crypto currencies. The below table compares Avesta with other popular blockchain technologies.

**CRYPTO CURRENCY COMPARISON CHART**

	Bitcoin	Ethereum	Zcash	Avesta
Mining	✓	✓	✓	✓
Anonymous			✓	✓
Smart Contracts		✓	✓	✓
Account Numbers				✓
Coin inheritance				✓
Avg. confirmation time <small>(less is better)</small>	<b>600s</b>	<b>14s</b>	<b>150s</b>	<b>10s</b>
TX-second (approx.)	<b>20-30</b>	<b>30-40</b>	<b>20-30</b>	<b>1000+</b>
Coin Limit Hard Cap	<b>21.000.000</b>	<small>POS ?</small> <b>100.000.000+</b>	<b>21.000.000</b>	<small>ICO+Mining</small> <b>200.000.000</b>



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## Product development Roadmap



### Launch

Avesta Launch date is 5th of Jan 2018

Including:  
- Wallet  
- Platform  
- Mining

### E-Payments

Webshop and E-payment modules

Wallet update with smart-invoicing and smart contract user interface

### Debit Card

Avesta Debit card for account holders with KYC approval

VOIP and IM integration for Avesta Mobile applications



### ICO

12th November 2017  
13:00 UTC Start ICO

20th December 2017  
13:00 UTC End ICO

Public Testnet 24th DEC

### Accounting

Accounting Module and integration for Avesta Wallet  
Accounting API

### Hardware

Integration in Point of Sale hardware and software

Preparing global acceptance of Avesta



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## Conclusion

Some of the major problems in cryptocurrencies are solved by Avesta. We have created a fast, secure, and easy-to-use cryptocurrency that is also untraceable.

It will revolutionize the way people think of cryptocurrencies and pave the way for mainstream cryptocurrency adoption. Our vision of mining will also pave the way to new approaches for more fair distribution of reward for maintaining a cryptocurrency network.

Blockchain technology will show its true potential with Avesta.



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