



# HASHBACK

## The Proof-of-Stage Token

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# Executive Summary

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# Table of Contents

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/What is Hashback?	4
/Concept	6
/How?	7
/Background	8
/Mining	9
/Problems & Solutions	11
/Who?	16
/Developers	19
/Technology & Development Roadmap	20
/Hashbackers	22
/Team	29
/Advisors	34
/References	38
/Authors & Contacts	39

# /What is Hashback?

Hashback is a decentralized blockchain based “Proof-of-Stage” token that can be utilized in any services industry where short term contracts for accommodations, reservations, rentals, leasing, intermittent and time based rate services apply.

Hashback seeks to systematize the entire lifecycle of these kinds of services into 5 stages, the first of which mines for rewards and each consecutive stage thereafter proves the physical performance of the preceding one.

This sequential quantification presents an opportunity to create an entirely new economic model in the process of ordering and offering these services, including quality control.

Much like Bitcoin and Ethereum for the financial industry, by quantifying the services process into tokenized property using Proof-of-Stage, Hashback creates trust without intermediaries in service industries where time itself is the actual product, building reputation and loyalty directly between the service provider and the customer while eliminating third party expenses altogether.

## Objective

Until now the relationship between the professional and the user through blockchains has been represented predominantly by the ability to send and receive cryptocurrency payments. This is merely the beginning of establishing a much more comprehensive relationship between them.

We believe that the next step to establish a real presence inside the blockchain network for the services industry is for service providers to have a way to clearly signal the availability of their services to the blockchain community, provide those services reliably, earn revenue in the process, and build a trusted reputation with a way to seamlessly connect and reward users for their loyalty. Users on the other hand will have an equally reliable platform to verify reputations, book services directly, and also have a means to provide feedback that can be reciprocated with programmable Hashback tokens as rewards.

Moreover we believe it will greatly benefit the blockchain as more and more participants are steered into its ecosystem through this new infrastructure for the shared economy.

## /Concept

Time spent performing services has until now never been an asset unto itself even though it is the very vehicle any service is delivered upon. Traditional economic constraints have also turned third parties into trust centers between those who offer and those who use services, effectively solidifying intermediaries as guarantors and trustees of quality and conflict resolution; for example, the taxi company guarantees the taxi ride, not the driver; or, when issues are left unresolved with a hotel booked through an online service, the online service guarantees mediation, not the hotel itself.

The decentralized blockchain opens up a whole new way to generate peer-to-peer trust without the need for third parties, just as Bitcoin eliminates the need for banks and governments to step in and guarantee financial transactions.

We are bringing new players to the shared economy paradigm while completely reinventing a major portion of the service economy itself and presenting service providers with an entirely new revenue stream they never expected.

## /How?

In this undertaking we propose to create a token on the public blockchain based upon a principle we called “Proof-of-Stage” (patent pending)<sup>1</sup> that can be utilized in any services industry where short term contracts for accommodations, reservations, rentals, leasing, intermittent and time based rate services apply.

In order to facilitate such a system we propose a blockchain based solution which reliably categorizes Proof-of-Stage into 5 steps: **A**vailability, **R**eservation, **D**elivery, **S**atisfaction and **L**oyalty (ARDSL). These 5 stages describe a successful service lifecycle.

<b>A</b> : Availability	→	service is available for reservation.
<b>R</b> : Reservation	→	actual reservation is accomplished.
<b>D</b> : Delivery	→	service is received.
<b>S</b> : Satisfaction	→	satisfied with service.
<b>L</b> : Loyalty	→	returning to reserve again.

Each consecutive stage of the 5-stage process verifies the satisfactory completion of each previous stage. Tokens are mined during stage 1 and claimed by the service provider at the satisfactory completion of stage 5.



<sup>1</sup>Patent pending, serial No. 62/557,377

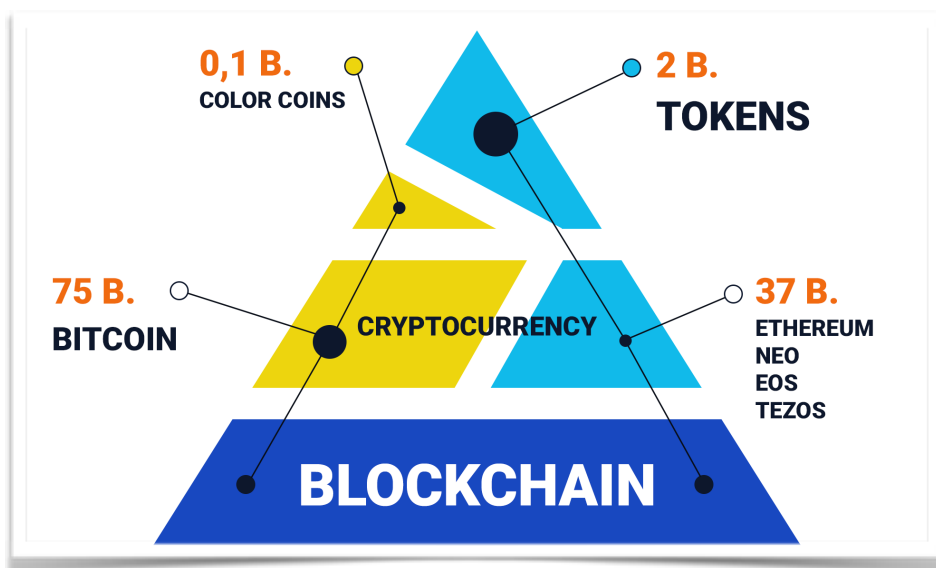
## /Background

Concurrent to developing cryptocurrency platforms for easier high level protocol usage, the crypto-community is busy trying to replace proof-of-work with proof-of-stake in order to maximize blockchain security and minimize computational resource consumption. This replacement was and is considered to be critical in order to save resources consumed by cryptocurrency mining, which is then designated toward assuring reliable transaction processing. Proof-of-work has naturally very complicated computational requirements, hence the term "work", and it demands an ever increasing amount of computer resources whereas under the proof-of-stake concept, users vote on transaction legitimacy with their money.

Fundamentally, both transaction confirmation systems and the platforms built on their concept are low level protocols atop which financial services protocols reside. Tokens and their systems are built and based on this, yet there is no system that regulates issuance of tokens, i.e., anyone can issue any number of tokens whenever and for whatever. This opens up immense opportunities for the token crowdfunding industry to blossom; however, as a rule, limiting token distribution is not a significant architectural factor in these protocols. Essentially, a limited amount of tokens are issued in order to increase their subsequent price, and because they can be divided by any desired numeric value, that limitation does not affect their liquidity.

In that case, can token emission be merged with the business process itself?

Let's build a high level blockchain protocol (a token) meant to govern the entire business process lifecycle using an already popular and proven mechanism known as mining, and let's do it in such a way that makes it attractive to both businesses and customers while rewarding participants who examine and authorize the process along the way; say for example a decentralized, distributed, self-governing computer system that can facilitate a reliable and secure peer-to-peer accommodation service that cuts out intermediaries and returns more than \$125 billion back into the hands of consumers and accommodation (service) providers.



Source: Hashback © 2017



# /Mining

*“The steady addition of a constant amount of new coins is analogous to gold miners expending resources to add gold to circulation. In our case it is CPU time and electricity that is expended.”*

-SATOSHI NAKAMOTO

**In our case these are operating costs to maintain the service as it sits idle in a state of readiness anticipating reservations from customers, which are expended during Hashback mining.**

A provider's service sitting idle in a state of readiness anticipating orders still costs money.

- Hotels pay overhead even when a room is not booked.
- Taxi drivers still pay for automobile insurance, maintenance, tolls, etc.
- Car rental facilities pay franchise fees, employee payroll, property costs, etc.
- And so on - home repair, outsourced commission based services, housekeeping services, adult entertainment and services, freelancers, personal assistants, nanny services, on-call professionals, etc., all have maintenance costs to manage while no orders are coming in.

**Now these downtime expenses, today readily accepted by service providers as the bitter reality of the market in which they play, are completely inverted 180° from customary *costs* of doing business into a new source of *revenue* through mining Hashback tokens.**

**It is quite literally, revolutionary.**

## Advantages

Old problems that are systemic due to the nature of the traditional economy and its mandates can be resolved in the new blockchain economy. Each of the five ARDSL stages would have its own problems in the traditional, centralized, agent driven economy. Hashback proposes a radical solution to all of them through a decentralized, blockchain based economic system of incentives, penalties and programmable loyalty. To gain a full understanding of the system and mathematics behind it, please read our [White Paper](#) that can be downloaded on our website.

- Hashback generates an incentive for the service provider and the customer to interact with one-another directly
- Service providers will gravitate to this much more advantageous model over today's outdated one
- This system directly motivates service providers to sell to the blockchain community and promote the system to existing customers to join and book direct
- Customers gain the power to effectively change quality of service
- Hashback mitigates third party intermediaries
- Service providers and customers gain alike as the price of the token appreciates as new users join
- Costs of services go down and revenues are driven up

# /Problems & Solutions

## Availability

### Problem:

Availability is one of the biggest problems of online services that demonstrates the internal conflict between the service provider and the agent (the third party). Every online marketplace or agent that sells a service must be certain that the service is available for immediate sale to customers. Unlike availability of physical products that is managed through the supply chain, warehousing and distribution, service availability is far harder to manage and is much larger in scope. Besides having to verify availability of many different services at all times, providers have to do so with a multitude of different third party sources and channels, and where those third parties also sell competing services. A hotel room; for instance, cannot be warehoused, and so online travel agencies (OTAs) have very specific provisions built into their contracts called “allotment” that require hotels to allocate available rooms to that particular channel with penalties applied if breached. The critical importance of Availability can best be illustrated by the Uber “pick up” button. If drivers were often unavailable Uber could not exist. It is the reserve drivers and transportation vehicles that make this pick up button functional.

### Solution:

We propose offering incentives in the form of tokens to any service posted as being available in the blockchain. And it is specifically the time each such service is available that will act as the primary factor for mining tokens; that is, a token will be mined for the duration of time a service sits in a state of Availability. More technically speaking, we are referring to smart contract services that detail all necessary parameters of the given service including its Reservation terms and conditions (see further). It is imperative to note that not one of these parameters directly affects the mining algorithm. It does not matter what specific service the service provider posts on the blockchain. Token mining begins immediately upon posting.

All on its own this simple idea establishes motivation for the service provider to offer services in the blockchain and make them available. This motivation is far greater than the motivation to post Availability via existing third party sales channels for several key reasons.

- Mining tokens through service Availability in the blockchain generates compensation during the period where the Availability is idle and awaiting Reservation (see further) rather than traditionally where compensation only occurs once the service is used by the customer, less any fees or penalties.

- It helps neutralize losses from down times such as seasonal or other natural, cyclical slow periods, as well as from price fluctuations.
- Service orders do not trigger any commission costs since the services are ordered p2p direct.
- Tokens are mined only during the service's Availability stage meaning that once the service is paid for it no longer mines tokens since it has been reserved and has moved onto the next stage of Proof-of-Stage.

In summary, Availability mines tokens for the service provider. Availability also makes it possible for the customer to order the service. Consecutive stages are security steps and a systematized method to manage the service lifecycle such that the service provider and the customer can interact as well as resolve possible conflicts.

## Reservation

### Problem:

What do we do with dishonest service vendors who post service Availability to the the network when such services are not really available or that may not even exist in the first place?

### Solution:

We use the Reservation stage to validate the previous one. In part, any token mined during the Availability stage will not be validated (certified) until the service has been Reserved. In addition, each Reservation period validates a previous but equal period of time of Availability. Simply put, if for example a service provider, let's say a hotel, signals service Availability for a two week stay in 24 hour service increments (14 nights at a per night rate) then a Reservation for one week will validate mined tokens for a week of Availability. Looking at it another way, for this week's no-order idle period the service provider's mined tokens will be validated only upon a week's worth of Reservations.

What effectively happens is a validation that a service being promoted as Available for Reservation was in fact reserved. If a service provider happens to continuously reject Reservations, sooner or later that provider's effectiveness to mine tokens decreases to the point where that service provider is simply excluded from using the network altogether.

## Delivery

### Problem:

Reservations unto themselves are not enough since at this stage we have validated only a signal from the service provider claiming Availability, but we have not verified the services' existence in natural reality (in real life). Similarly, we have not yet verified if the user making the Reservation even exists.

### Solution:

At this stage we are verifying the two previous stages. To do this we are inserting both tokens (the one used to Reserve and the one mined during the idle no-orders period) into an escrow smart contract as collateral prior to the user's actual receipt of the Available and Reserved service, which is then confirmed by both parties and then only afterwards is payment reconciled.

One uncommon but nevertheless important problem to address is an event where the seller of the service and/or the buyer of that service do not meet one-another at the requisite time and/or place, for whatever reason, sometimes even for reasons beyond their control.

If the buyer is not present then the seller informs the network about this occurrence. If the buyer actually did show up but the service was not rendered (in other words the seller was a no-show), the buyer informs the network respectively. If the parties' versions do not match, the seller and buyer have the opportunity to reach a consensus amongst themselves. If a consensus cannot be reached then the service provider loses the tokens that have been mined and the buyer gets his tokens back in accordance with the smart contract Reservation terms (less the transaction commission). In some cases the Reservation terms may have a non refundable deposit clause in which case the user may lose his tokens; however, nobody forced that user to agree to those Reservation terms. Ultimately, these sorts of events are the very reasons that reputation is expressed through mining efficiency (see further).

The buyer is thereafter blacklisted from buying services from that service provider again, but will not lose any tokens. The seller's mining effectiveness diminishes, and not only due to the individual incident whereby the seller lost the mined tokens, but also due to a decrease in the seller's successful sales coefficient.

## Satisfaction

### Problem:

Quality of service. In any manually operated system one can contact customer support or file a complaint for poor service, but what does someone do in a decentralized network that has no third party trust centers?

### Solution:

The user will have an option to leave a review regarding the quality of service received. Such reviews will naturally be permanent fixtures in the blockchain and the resulting ratings will directly influence service providers' token mining coefficient.

In order to counterbalance and minimize the impact of embellished or inaccurate reviews of service providers, users will also have their very own ratings and a user's reviews will be multiplied by his or her own rating coefficient. This coefficient is likewise applicable when calculating the Loyalty factor (see further).

## Loyalty

### Problem:

A report done by the Deloitte Center for Financial Services<sup>2</sup> highlights that the biggest problems with loyalty and rewards programs are that they fail to realize their full potential due to account inactivity. In other words, according to the study the programs are out there and people have access to them, but due to their inefficiency and relatively confusing or inconvenient accessibility, people simply don't bother to use them enough or use them effectively. Low redemption rates, time delays, high transaction and system management as well as customer acquisition costs, all contribute to the inefficiency of loyalty programs. The study cites that low customer retention is a symptom of scarcity in uniform management systems across loyalty and rewards programs, which confuses customers and is a primary source of members' lack of activity.

### Solution:

The Hashback token is programmable and connects to existing loyalty and rewards programs or entirely new programs can be built on top of Hashback. On one hand Hashback is open and works independently, on the other hand it offers a unified management system that can be tied to any number of varying loyalty and rewards programs. In fact, entirely new programs can be created using Hashback. That means users have universal access to any available programs using any one

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<sup>2</sup> [“Making blockchain real for customer loyalty rewards programs” by The Deloitte Center for Financial Services](#)

of a multitude of points connected back to Hashback, which makes it easy and versatile for the customer who will respectively want to use it. In addition, the blockchain makes transactions and transfers as close to instant as can be achieved, that is, in real time. Hashback works through the blockchain so customers can experience the results of their interaction with the service provider as a fellow Hashback token partner at the other end, instantly.

Any token in the system can be programmed through Hashback. The uniqueness of this function is that any program is executable but once; for instance, a token can be programmed to reflect a private exchange rate for payment toward a specifically designated service. This rate can be utilized upon purchase of that service by the owner of that token. The token can be programmed with other functions as well; for example, as a bonus accumulation program proportional to the number of service purchases made.

If there are no purchases in the system then this rating equals 0. The loyalty factor has influence over the mining factor of any given service.

## Scam prevention

Hashback realizes that attacks on its system are imminent. To ensure reliability and defend against both scams and spam we have devised a comprehensive prevention plan with the latest of every known technology and strategy at our disposal as well as built-in mechanisms in the Proof-of-Stage platform itself that makes it financially counterproductive and disadvantageous for attackers to try to cheat the system. Please go to our website and read our [white paper](#) for specific details.

## Inflation resistance

In order for a token model to become inflationary, in the long term the amount of available tokens in circulation must become greater than the price of all available services in the network. Token volatility therefore depends on demand for services at any given moment; for instance, demand for tokens might decrease after vacation season ends and increase again once reservation services are in demand; however, because seasonal trends are predictable they will be balanced via market speculation.

Hashback's token mining coefficient formula (see [white paper](#)) demonstrates that token emission is limited and constantly falls until it reaches the set maximum amount of tokens in the system. Considering the natural loss of tokens, long term investment percentages and other factors that compensate emissions, the volumetric growth of the market itself as a whole as well as new services being added and offered ensures that in the long term the token will appreciate in value because there will never be enough tokens to pay for all of the combined services that are available.

The risks of drops in the Hashback token exchange rate are associated with seasonal slowdowns (or any slowdown period/factor), service industry crises, and reasons such as global cataclysms and similar acts of God.

## /Who?

The accommodation and rental services segment is huge! From renting living or commercial space to automobiles, from booking travel and hospitality to logistics and freight transport, from taxi services to tourism, we're talking very big numbers here. Hashback can even be used for services such as freelance work, housekeeping, delivery services and much, much more.

The hotel industry alone turns over more than \$500 billion. It is actually quite hard to reliably calculate the size of Hashback's potential industry pie-share that Proof-of-Stage will reach and change. One of the reasons is that this innovation is totally new and manifests an asset that does not have a traditional classification. We confidently estimate that as a whole there is a minimum \$1 trillion market for Proof-of-Stage services.

All of these industries' services are connected to agents and centralized marketplaces that take commissions while trying to provide basically 3 types of services (in different combinations):

1. Connect the buyer and the seller.
2. Provide a reputation and feedback mechanism.
3. Transact money securely.

The most important economic role of intermediaries is to be a trusted party for both the service provider and the customer. Hashback replaces the trusted party with the decentralized blockchain and converts services from third-party managed intangibles into Proof-of-Stage assets. By doing so, Hashback is introducing a new economic reality to the shared economy that brings with it completely new opportunities as well as honest value, both to the provider and the customer alike. And since the quantifiable component to Hashback is the token, the value is retrieved in cryptocurrency and therefore the value will be reflected directly back into the price of the token, benefiting its holders. Everybody wins.



## Target market

Essentially the Hashback Proof-of-Stage token applies to any industry whose services are predicated on short term contracts, that is, those where the phrase “time is money” is to be taken literally. Any professional service that loses money during down times and relies on continuous sales revenue through third party intermediaries has a powerful untapped asset, the energy of which can only be released in a decentralized environment through Hashbacks’ Proof-of-Stage token and transforms valuable services into actual crypto-value.

### Hotels & tourism

- Over \$500 billion
- 22-32% on average spent on third party intermediary services

### Adult Services & Entertainment

- \$186 billion & \$97 billion respectively

### Taxi, limousine & personal transport

- \$108 billion globally

### Auto rental

- \$75 billion expected to reach \$125 billion by 2022

### Others:

- Logistics & freight including delivery, pick up, postage and courier services
- Residential/apartment & domicile rental, lease
- Outsourced commission based services
- Housekeeping
- Home repair
- Freelancers
- On-call professionals
- Tutors & private education
- Consulting services
- Doctors

Once the third party broker is mitigated, Hashback allows the original source to offer its services directly to the customer on its own terms, volition and credibility while nevertheless retaining all of the previous bells and whistles enjoyed through third party services; in other words, trust without

middlemen. In exchange, the customer relies on information provided directly from the source and/or from others who have previously rated that source from personal (and direct) experience, because reviews, ratings and reputations are permanent fixtures that cannot be tampered within the blockchain and in the case of Hashback, also occur at the finale of a quantifiable Proof-of-Stage process. The customer can then add his or her impression of the services to further refine the provider's reputation and thereby offer the next customer a clearer picture of service quality in advance of purchase and thereby, loyalty.

As we come to see, the progressive result over time is a truly competitive landscape established on a direct provider-customer basis. True competition with no third party interference produces a genuine free market where competition cannot be artificially manufactured, and where more and far better options are available to the provider in terms of self development and growth, and to the customer in terms of choice and rewards.

## Hotel industry example

If we look at just one example where third parties have seized an entire industry we can look no further than the hotel industry. On its own a more than ½ trillion dollar segment worldwide, well over 20% of hotel industry revenue is absorbed by various intermediary service fees. These third parties include OTAs, agents, banks and credit card providers.

Third party fees breakdown by service:

OTA:	18%-25%
Banking fees:	1%-2%
Credit card fees:	3%-5%
Total:	22%-32%

There have been countless attempts by the hotel industry to overcome this hegemony with no luck. The primary reason is that agents act as frontmen between the provider of the accommodation and the customer. Agents spend considerable amounts of money advertising services that they themselves actually do not provide, moreover, these third parties completely disconnect the customer from the service by disallowing the service provider and the customer access to one-another directly upon contracting those services. They do so by providing false claims of security and by enslaving accommodation providers with outrageous anti free market contractual terms.

A decentralized, distributed, self-governing computer system that could facilitate a reliable and secure peer-to-peer accommodation service would help cut out those intermediaries and return more than \$125 billion of value into the hands of consumers and accommodation providers in the form of a Hashback token. And this is just one of many potential industries.

# /Developers

Since Hashback is an open system (open source as well), developers can build their own unique, custom implementations atop of ours.

## Basic principles:

- All clients will be open source applications that can use external frameworks and be written in different programming languages
- Anybody can write their own Hashback application
- iOS and Android clients as well as a web interface will be provided
- Hashback data can be incorporated into other blockchain or non blockchain based solutions

## Possible uses:

- Industry/Sector Solutions
- Booking managers
- Apps and interfaces
- Integration into existing booking and channel managers
- Different business process solutions
- Additional add-on services
- Rewards, loyalty, reputation, ratings and/or user feedback programs
- ... and so on

# /Technology and Development Roadmap

From a technical standpoint the Hashback system will have two components: that of the client and that of the blockchain.

Over the next months Hashback will build all of the necessary modules for both front-end reference apps as well as add-on back-end capabilities and blockchain.

We will build the following solutions: front-end reference apps (web, iOS, Android), an SMS verification subsystem, back-end reference apps, smart contracts, code documentation.

## Major system components:

Component	Type	Description
Availability	GUI Search sub-system, Mining Console Smart contract configuration, ARDSL framework (support for Rating, Ranking etc)	Placing asset into the market, searching for it using different search criteria
Reservation	GUI Reservation sub-system, Notifications, Mining console Request Approval system, ARDSL framework (support for Reservation, Escrow, Cancellation etc.)	Submitting and Managing reservations
Delivery	GUI/User Wallet Payment/Transfer/Conflict resolution, Mining Console Transfer/Receive Payment support, ARDSL framework (Transfer Support, Conflict Resolution Protocol support)	Managing transfer approval, release of escrow, conflict resolution
Satisfaction	GUI User Rating and Review, ARDSL framework (Rating Support)	Managing feedback and rating
Loyalty	GUI Wallet Support, Mining Console Token programming, Loyalty Builder/Manager support, ARDSL framework Token Programming, Loyalty Protocol support)	Managing Rewards and Loyalty

In order to do this we will employ technical teams using the proceeds from the ITG as described further below in the financing section.

## Technologies we use:

- React JS
- React Native
- React Native for Web
- Node.JS
- Google CDN
- Google Firebase
- Ethereum Blockchain
- Solidity

All source codes will be submitted to Hashback's GitHub repository located at: <https://github.com/hashback>

All of the following decisions are preliminary and subject to modification by the development team from time to time.

All projects will be tracked using project management tools for GitHub. Teams will use Agile/SCRUM methodology for project management.

## Technology Roadmap

Delivery Date Estimate	Front End	Back End	Smart Contract
September 2017	Basic Wallet, User GUI	Integrate RTD based API for SMS verification library	Smart Contract, Testing tokens own network
October 2017	Miner pre-release, GUI, Client, Notifications	ARDSL framework (Availability Sub-System)	Token Audit, Pre-Sale ready
November 2017	Miner Testing, GUI Search basic	ARDSL framework (Reservation Sub-System)	More Audit, ITG Token testing
December 2017	Miner Beta Release, Client testing	ARDSL framework (Transfer Support, Conflict Resolution Protocol support Sub-System)	ITG ready -> Event -> Token Mining support
May 2018	Miner Release, Client release	ARDSL Framework release (Rating Support, Loyalty Support)	End of ITG, Token Mining

# /Hashbackers

Hashbackers are everyday blockchain users who want to own tokens early and at the best possible rate through our pre-ITG program and also become the first users of Hashback and its new service to book and order services over the network once it is launched.

With Hashback there is a technical mandate to distribute the initial set number of tokens for the network to work properly. The Initial Token Generation (ITG) of the “HBK” (proposed token denomination) will take place in three stages as described further. Any individual with an Ethereum wallet will be able to purchase HBKs.

For the blockchain we currently are using Ethereum and more particularly, an ERC 20 token standard:

[https://theethereum.wiki/w/index.php/ERC20\\_Token\\_Standard](https://theethereum.wiki/w/index.php/ERC20_Token_Standard)

Hashback stays current with new technologies and as the blockchain market develops we may certainly decide to use technologies other than Ethereum moving forward, e.g., Tezos. But this remains to be seen.

The HBKs will be used as:

- A resource to finance the project's development
- A source of initial Tokens to kick-start the Hashback economical model
- A programmable rewards program

## Early development and funding

Hashback's Initial Token Generation (ITG) will take place using Ethereum smart contracts. Participants choosing to support the project will be directed to a specified ITG Ethereum address where Hashback tokens will be generated and issued in value equal to the contribution at the specified Hashback/ETH exchange rate. ITG participants will be able to send Ether (ETH) to the crowdfunding Ethereum address only after the start of the crowdfunding period (specified as the Ethereum block number). Crowdfunding will expire when the specified end block is created or when the ITG minimum is reached.

Hashback will launch a pre-sale of its Ethereum Pre-ITG tokens that will be converted in favor of the primary token contract through a specialized safe migration function after the official ITG process commences.

**Crowdfunding terms include:**

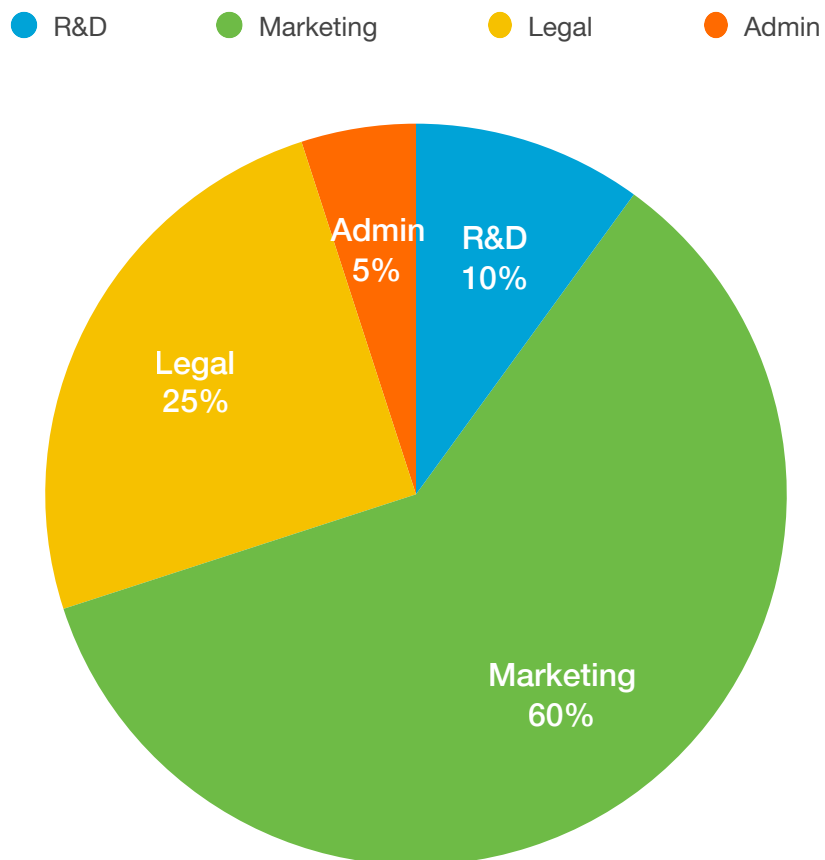
- ITG will proceed through the native Hashback application using Ethereum smart contracts
- ITG will be capped at the equivalent of USD one (1) billion.
- Hashback token transfer will be restricted for security reasons for one (1) month after the crowdfunding cycle ends. All unredeemed tokens will be burned
- The mandatory minimum of funds necessary for collection in order to move into the ITG phase are USD one (1) million. If not reached, all money received will be refunded to participants accordingly

**Founders' fee**

At the end of the ITG, the founding team will retain 10% of their HBK tokens subject to a 36 month vesting schedule. These tokens will serve as a long-term incentive for the founding team. 90% will be spent on direct costs according to the roadmap we lay out. Funds gathered during the ITG phase will create the capital required for Hashback to operate starting from the development stage and are expected to be sufficient enough to sustain the project through to 2022.

## Stage 1 - Seed (HBKS) tokens

Takes place as a private placement and establishes support for an aggressive development roadmap in a very short period of time. The Stage 1 will be capped off at 700 ETH. The funds raised during Stage 1 will be allocated as follows:

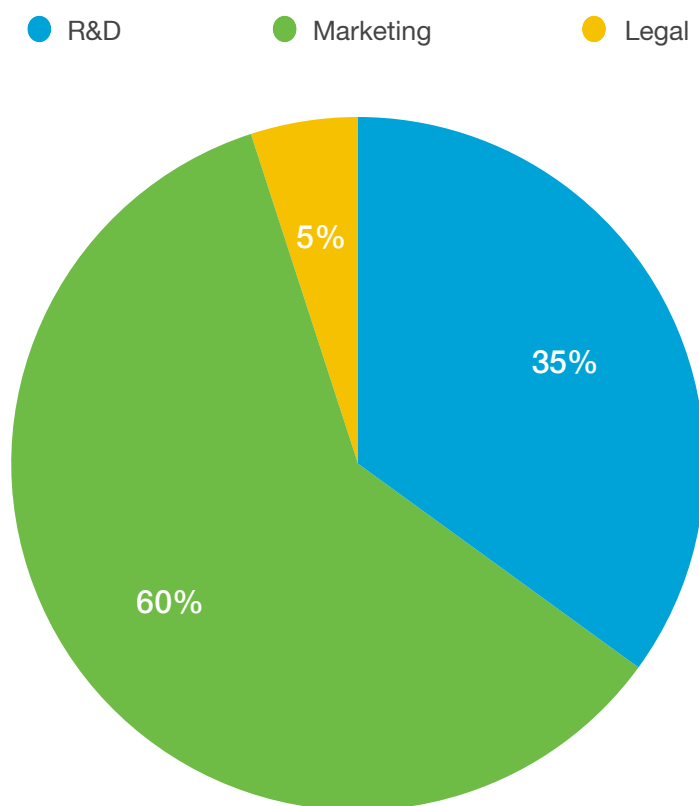


**All issued HBKS tokens will convert to Pre-ITG at a x2 conversion rate.**



## Stage 2 — Pre-ITG (HBKP tokens)

In order to launch a successful ITG we need Hashbackers to help us raise the prerequisite amount of funding. Stage 2 will be capped at 10,000 ETH. The funds raised during Stage 2 will be allocated as follows:



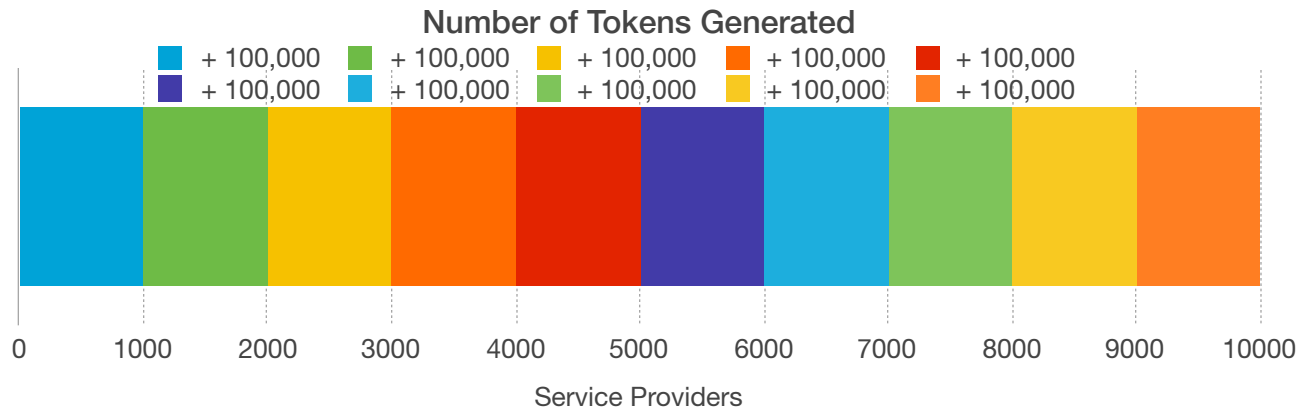
**All issued HBKP tokens will convert to the ITG at a x1.3 conversion rate.**

### Stage 3 — ITG (HBK tokens)

Hashback token generation is a necessity. Without it there will be no tokens to pay for services in the network initially. Since the verification process cannot be completed without paying for services no token can be mined before another token is spent.

The amount of tokens needed depends on the number of service providers that will initially join the system; therefore, the initial token generation (ITG) will be structured as a multi stage event continuing for 6 months or until the final cap is reached.

For this Hashback has created a partner incentive program dubbed “Partner Mine” (see website for details).



Assuming each service provider lists an average of 100 service units each costing 100 tokens for a duration of 10 time periods, the total cap of 10,000 service providers during the 6 month ITG period will require an initial 1,000,000,000 tokens. This would be a perfect start for the hotel industry’s summer session, for example.

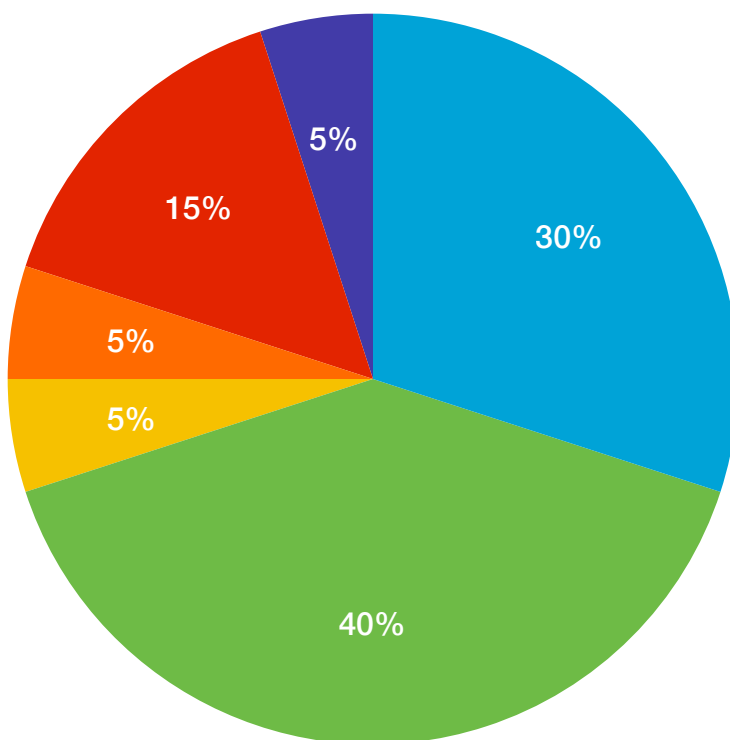
If, let us say, a night of accommodation at a hotel costs 100 tokens and an average stay is 10 days, such a hotel will need 1,000 tokens to mine the initial tokens for 10 days of its idle period when no Reservations occur.

For each 1,000 service providers that join, the amount of tokens generated will be increased by an additional 100,000,000 as will the token price be increased, and so until all 10,000 service providers join.

## Grace Mining Period

First-to-access service providers that join our “Partner Mine” partner program during these initial 6 months will enjoy a grace period of mining. These initial service providers will be able to list their service units for 6 months (or less - from the time they join until completion of the ITG period) without having to physically provide any services and they can mine at a maximum mining efficiency formula coefficient. They will thereafter receive their mined tokens via the standard process when reservations are made through Hashback once the system launches. All service providers will be verified manually by the Hashback team.

## Use of proceeds



## What we offer in return

Under the Hashbacker program, contributors contractually receive a unique HBKS token that is converted into pre-ITG (HBKP) or ITG (HBK) tokens through a migration function. Details of the conversion from pre-ITG to ITG tokens will be included in the agreement.

Hashback token conversion chart:

Initial token	Ending token	Rate
HBKS	HBKP	x2
HBKP	HBK	x1.3

As a result, for every HBKS token purchased, the Hashbacker ends up with 2.6 tokens at the ITG stage in USD equivalent (calculated to equally balance the initial value of the token throughout all stages).

Milestones	Finish date	Source	Amount
Technology research, testing, white paper, technical documentation, prep	July-August 2017 <b>Completed</b>	Self funded by founding team	
Prototype development, ITG preparations, marketing & PR	September-October 2017	HBKS campaign	700 ETH
Pre-ITG funding	November-December 2017	HBKS convert to: pre-ITG HBKP; HBKP token sales	10,000 ETH
ITG	January 2017	HBKP convert to HBK	From 333,000 to 3,333,000 ETH

## /Team

The Hashback team is a constantly growing organism that continues to expand daily. The names and roles of our supporters, advisors and participants is never final and additions will be visible to the public on our website.



### Dmitry Goroshevsky

**Co-founder, contributing to overall vision, project management**

Dmitry is our chief visionary whose inception is now the global strategy we call Hashback. He is the architect of the company's idea and team leader of Hashback's concept. He has led numerous technical teams to success and has developed a wide range of innovative solutions, including most recently, Chatnbook and ModUp. "Mitya" as he likes to be called, was the co-founder and CEO of BrainsMatch, which developed innovative matching algorithms for the recruitment industry. Prior to that he was co-founder and CEO of Popular Telephony which invented and patented serverless p2p technology. He was co-founder and CEO of Internet Telecom Ltd., one of the first IP telephony core technology development companies that led to the adoption of IP in broadband cable and PBX. In 2000, as a highly sought after and well regarded expert in the heyday of the internet telecommunications industry boom, he was instrumental in the growth and sale of Internet Telecom to Terayon Communications Systems (NASDAQ: TERN) in 2000. He trained as a media communications producer-director and became influenced by the expansion of the internet in the early 90s. He became one of the first to recognize and develop VoIP. Mitya co-founded and managed Delta Three Communications (NASDAQ: DDDC), the first global VoIP service provider in the US, the technology that we so commonly use today. During the late 80s he also co-founded the First Open University in St.Petersburg, Russia, before moving to Israel. He is a co-author of several patents in serverless p2p technology space.



### Anton Serkov

**Co-Founder, contributing to technical leadership, user experience, front end development**

Anton is a brilliant software developer and engineer with a myriad of successful mobile and web application projects to his credit. His responsibilities include software architecture, professional front and back-end engineering, as well as interface and interaction design projects emphasizing optimal user experience.

He is an individual commonly known as a "tech prodigy" and has for eight years been recruited to re-engineer struggling software startups that hit a brick wall. Most recently he took micro-cap

Smilart UG Stuttgart/Smilart LLC, a facial recognition micro-cap software development company using open source algorithms for holistic face detection, and produced for them a viable, sellable product in under eighteen months. Prior to Smilart, Anton assisted Simple Solutions LLC, a photo editing software startup to gain traction in the Russian marketplace amongst its competitors by creating an online version of their product that social media networks use successfully to this day. Before that he gained work experience at the Computer Security Agency in Russia developing a social network multipurpose platform. Prior to that Anton worked on his own independent project in the virtual reality space, in particular, he enhanced VR for compatibility on mobile platforms for smartphones. Anton was a major contributor in protracting the usage of real-time databases for the universal chat platform Chatnbook as well as others.

Anton has earned numerous awards and honors in programming competitions, most recently from the Association for Computing Machinery (ACM).



## Ron Millow

**Co-Founder, contributing to market capture, business development and telling the universe about Hashback.**

Ron currently leads Hashback's investor relations and startup market development strategy, focusing on identifying, nurturing, and securing financing with investors as well as on the company's launch. His time is spent primarily on Hashback's external activities to assess and capitalize on opportunities that align with the company's universal goals. He is a strategic thinker and is busy positioning Hashback as the new breakthrough technology in the blockchain economy in order to attract investors and partners. Before Hashback, Ron was the CMO and SVP of global development at Smilart, a leading facial recognition software development company headquartered in Germany with R&D and sales offices in Russia. Prior to that he founded, grew and sold his own successful marketing and events firm that had offices in the US and Europe. His primary area of focus was technology and life sciences and he has done business and closed numerous deals with some of the world's most recognized Fortune 500 companies. Before that he was SVP of sales - Americas for the world's largest event production company where he was in charge of sixteen offices spread throughout the US, Canada, Central and South America. There his primary area of expertise were the technology and telecommunications sectors. Before his departure he nearly doubled the company's sales revenue in four years' time. He left in 2002 in order to start his own company in the same industry. He is a seasoned expert in b2b sales, strategy, and sales force development.

Ron holds a bachelor's degree in biochemistry from Northwestern University of Illinois and also completed medical school at the Feinberg School of Medicine at Northwestern.



## Vasiliy Selivanov

**Contributing to network architecture, project infrastructure and blockchain programming**

Vasily was a major contributor in the development and implementation of Russia's Ministry of Taxation and Levies' automated, centralized tax reporting and processing data center system. For the last ten years he has held key positions in several of Russia's largest telecommunications service providers. Vasily helped build several complex telecommunications systems based on MPLS and also implemented voice technology (PSTN-VoIP integration) for telecoms in Russia. He was a vital contributor to the launch of Chatnbook and still oversees development (backend, devOps) of Chatnbook's platform today. He has vast experience in backend development using Node.js, Perl, Erlang, MongoDB, Redis, Sphinx.

Vasily has a degree in applied mathematics from Volgograd State University. Vasily is Cisco Certified.



## Viacheslav Belenko

**Contributing to overall system architecture, cryptography and Android development**

Viacheslav has over 20 years of multifaceted development experience with embedded S/W, client-server solutions and mobile applications. He is an expert in information security and has managed LG Electronics' cryptography research and security protocols and mechanisms for over 15 years. Viacheslav was instrumental in the design and implementation of security solutions for numerous LGE products from mobile and home entertainment/automation as well as automotive. Before that he prototyped computer vision solutions for startup NantMobile, focusing on recognition of static images and video sequences including TV programs. The output was a complicated ecosystem consisting of mobile clients, cloud-side workers and cloud database for recognizable samples.

Over the last six years Viacheslav has been deeply engaged with Android mobile app development for a whole host of startups, including most recently for OK (Odnoklassniki), one of the largest social networks in the world targeting the Russian and former CIS audience, where he developed their audio player application.

Viacheslav earned a degree in computer science from Saint Petersburg State University of Aerospace Instrumentation in 1999.



## Igor Kosulin

### Contributing as programming Master Jedi

Igor has been programming for over 8 years as a natural. He has mastered numerous frameworks including Symfony, Yii, React, Angular, ExtJS and is a programming multilinguist.

For the past 5 years he has been the lead developer for Universal Software based in New York. He oversees its leading product, EMSOW (Electronic Medical System of Workflow), which significantly improves business processes in medical companies. EMSOW has hundreds of customers across the US and is aggressively expanding eastward and likewise into developing economies.

Igor is responsible for software and database architecture, frontend and backend engineering, as well as user experience optimization. He has advanced skills in agile project management methodology.

Igor has participated in several “Hackathon” competitions and has been an invited to speak at major technology events and conferences.



## Tatiana Karlin

### Contributing to message and brand development, media saturation and market awareness

Tatiana is a business development and marketing specialist with a focus on driving business goals by creating value for customers by finding ways to connect, engage and relate to the target audience.

For the past 3 years Tatiana has worked as a project manager for a private Swiss company overseeing IT projects including a bank fee audit application, an immigration info web portal and a private finance content platform, all from inception to project lifecycle completion and promotion (strategy development, content and social marketing activities).

Prior to that Tatiana worked for 6 years in marketing & PR in the retail sector as a key promotions lead for a major Indian coffee manufacturer with distribution channels in the Baltic states and former CIS countries, and as the the head of brand and market development for a large international real estate development firm with projects at MIPIM, MAPIC in France, Real Vienna in Austria, among others. She has vast and diverse experience in business development. In 2009 Tatiana supported the launch of Quelle operations in Ukraine (affiliate of Primondo, Germany). Earlier in 2003 she launched her own successful restaurant chain in Ukraine.

Tatiana holds a masters degree in international business from the Kiev Institute of International Relations at National University n.a. Shevchenko, Ukraine.



A champion of change, with great enthusiasm Tatiana strives to promote blockchain benefits as a real solution to everyday problems for people whose voices are rarely ever heard in the global economy.



## **Ilya Shabarov**

### **Contributing to web and brand design**

From early childhood Ilya was always creative and naturally drawn to the arts and sciences. He completed art school with a double major in graphic design as well as academic drawing. During his academic studies he became obsessed with the digital arts and continues to envelop himself in the latest trends and techniques to this day.

Ilya completed his postgraduate work in commercial architectural design and engineering.

In 2015 he was a finalist in the international KOREA: Our Stories contest where he created a digital art piece for Korea's national brand which was showcased in a major international exhibition inside the Korean Museum of Arts. Ilya continues to gain work experience in web design while taking continuing education courses in 3D modeling.

## /Advisors



### Yuri Ivanovich Nagernyak

**World recognized expert in international relations, global economics and social anthropogenesis.**

Currently Yuri's work focuses exclusively on matters regarding intelligent and emerging economic advancements, BRICS, global transportation and logistics, and systemic problem resolution in the fight against global terrorism.

He was the CEO, board member, and advisory committee member at several commercial and financial organizations as well as a member of the board and co-founder of a number of public and nonprofit organizations.

For over 30 years Yuri worked in the top hierarchy of Russia's executive and legislative branches of government, including more than 10 years in Russian foreign affairs offices throughout Far Eastern and Southeast Asian countries.

Yuri has an extensive list of publications, is the subject of countless media and news interviews, and is a frequent speaker and thought leader at engagements focused on political matters. He is an Academician (<https://en.wikipedia.org/wiki/Academician>) of the Russian Academy of Natural Sciences (RANS) and an active member of the Moscow Society of Naturalists (<http://www.moip.msu.ru/en/>).

As the author of a new scientific direction in the field of institutional economics Yuri was nominated for the Nobel Prize in Economic Sciences.

Yuri completed the renowned Moscow State Institute for International Relations, Ministry of Foreign Affairs, commonly known as "MGIMO", summa cum laude (red diploma) in international relations, and finished his graduate work in global economics at the esteemed Institute of Asian Studies of the Russian Academy of Sciences.



### Dimitry Joffe

**Legal outside counsel and policy superman**

Dimitry emigrated from Russia to the United States in 1989 while pursuing a graduate degree in microbiology at Moscow State University. He finally settled in New York in 1995 after making his way via Austria, Italy and the U.S. south to attend Columbia Law School.

Dimitry studied corporate fraud from Professors John C. Coffee Jr., Bernie Black and Judge Jed Rakoff and has been litigating serious fraud cases ever since. He also studied contract law from the late great Professor E. Allan Farnsworth, "One of America's most renowned legal scholars on contracts," and a "reporter for the influential 1981 Restatement (Second) of Contracts." Dimitry worked as professor Farnsworth's research assistant and book editor, 1L; winner of the Class of 1913 Prize in Contracts; and has been litigating sophisticated contract cases ever since.

He is a teaching fellow in civil procedure for the class of the late great Prof. Harold Korn, expert in New York Civil Procedure, and the famous Judge Jack Weinstein. "Mutuality vel non of collateral estoppel is mother's milk to me," Dimitry states. James Kent Scholar; Harlan Fiske Stone Scholar; senior editor at Columbia Law Review; summer and part-time associate at Wachtell Lipton -- the most profitable and prestigious corporate law firm in the U.S. He spent eight more years at Wachtell after graduation defending Fortune 100 companies, Wall Street banks and hedge funds in white-collar crime, fraud, hostile takeover, and securities class action cases regularly featured in the WSJ and NYT. Two years at Kasowitz in multi-billion-dollar fraud, RICO, takeover and antitrust cases on both the plaintiffs' and defendants' side. Then Dimitry spent three years in Switzerland suing governments worldwide on behalf of Philip Morris International, the most profitable and litigious tobacco company in the world. After that he spent four years back in New York representing Forbes billionaires in investigating and prosecuting international fraud cases.

Dimitry now prosecutes serious corporate fraud cases against large companies with his own practice.



## **Eugene ("Chuck") Bogorad**

**IT guru & expert technical strategy advisor**

Chuck is a veteran technology and communications expert. His IT background credentials are as impressive as they are lengthy, from programming, systems engineering and big data analytics to major communications experience in PR, government relations, financial PR, M&A and publishing. Chuck has worked for major Russian and international conglomerates including WimmBillDann/PepsiCo (acquisition), law firms such as EPAM, and has served on advisory boards for numerous innovative technology companies such as Smilart, a leading facial recognition software company based in Germany. His vast knowledge of the technology industry both in the private and public sectors, including top secret work with facial biometrics, make him an invaluable asset to Hashback.

Chuck is currently part of a team that has launched a Paragon Coin. He is a frequent speaker and thought leader at industry events worldwide, has been published frequently and is a regular contributor to major publications, technology news interviews, and other media, including associations that work toward standards and research in biometrics. He is a member of the International Federation of Journalists. Chuck successfully founded and co-founded several tech startups, including 2doloc, an online, geolocation based to-do manager for smart devices. He is on

the board of several technology companies and still consults. He has had roles as COO for video24 and was a communications and BPO advisor to law firms evaluating eDiscovery solutions. Prior to that he was the vice president of communications for the Applied Communications Agency.



## Eugene Morozov

### Champion financial advisor & investment strategist

Mr. Morozov has more than 18 years of experience in equity markets, commercial and investment banks and in real estate in the US, Russia, Ukraine, China and the UAE. He was employed by companies such as Coopers and Lybrand, JPMorgan, Deutsche Bank, Renaissance Capital and others. His main responsibilities included audit, securities trading, corporate finance and real estate development.

Mr. Morozov managed a 2 billion USD portfolio at GazpromInvestHolding LLC. He also directed the Red Square 5 development project and was CEO of M+ retail bank. Mr. Morozov served as CFO of the world's second largest travel visa company, VisaHQ and as CFO and CEO of cable channel RTVI. Currently he is a Partner at Standard Capital Group.

Mr. Morozov graduated from Lomonosov Moscow State University in 1990 and the University of Illinois graduate school with degrees in economics and accounting. He is a Certified Public Accountant in the US.



## Luba Evans

### Marketing & marketing communications mastermind

Harvard speaker and serial entrepreneur, Luba founded her first company, Webmechanics in 1997. WebMechanics was one of the first firms that created complex database driven applications for international clients including the United Nations, the Smithsonian and MSNBC.

In 2016 Luba founded the Anima Mundi Institute, an online media publishing company that creates, markets and distributes online courses for over 50,000 followers. She is a recognized thought leader in the online spiritual community. Earlier in 2008 Luba founded the Galiana Retreat Center where she led transformative personal development lessons to thousands of people.

Luba holds a graduate degree from New York University with a specialized emphasis on interactive telecommunications. While at graduate school she also worked at MIT Media Lab.



## Jennifer Bianchi

**Entrepreneur, model & spokeswoman extraordinaire**

Italian model and actress turned entrepreneur, Jennifer lives in New York and while working as a full time model for the most recognized worldwide brands she also runs her own startup - Modup, Inc. - a logistics app to make the modeling industry seamlessly efficient. Jennifer also works on other outstanding projects where radical technologies meet disruptive business models.

Jennifer is excited to be the first to bring Hashback to the modeling industry.



## Polina Grebeniuk

**Entrepreneur, model & Hashback promotions champ**

Born in Kiev, Polina is an entrepreneur and model currently based in New York City. She graduated from Bradford University in 2013 where she received her MSc in international business management. Polina is a co-founder of startup Modup, Inc., the main purpose of which is to help models and their agents optimize workflow.

Polina is ready to adopt Hashback for the modeling world.

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