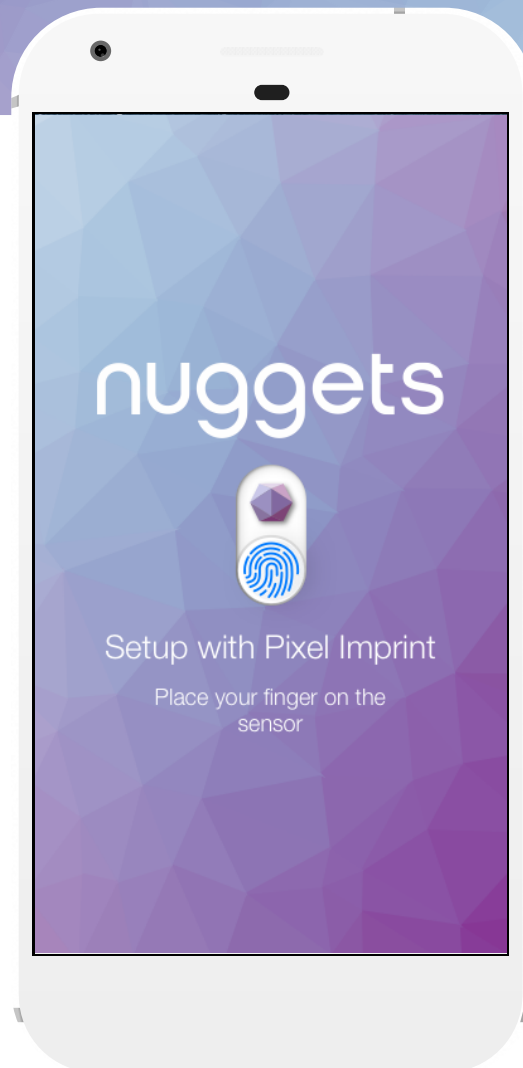


nuggets



White Paper V7



LOGIN SIMPLY

All biometric: no passwords.
And no using your logins to track you.



PROTECT YOUR ID

No one sees it – not even us



VERIFY IN MOMENTS

Prove you're you



CONTROL YOUR DATA

Keep it to yourself



PAY SECURELY

Without storing or sharing your data



TRUST NETWORK

Only trusted people and businesses



Take back control of your data

Nuggets is an e-commerce payments and ID platform. It stores your personal and payment data securely in the blockchain, so you never have to share it with anyone – not even Nuggets. That means no more data breaches – because companies don't have to store your data. So you can use services and make payments without worrying about your privacy and security.

Take part in the token sale and find out more on Telegram: <https://t.me/nuggetsblockchain>

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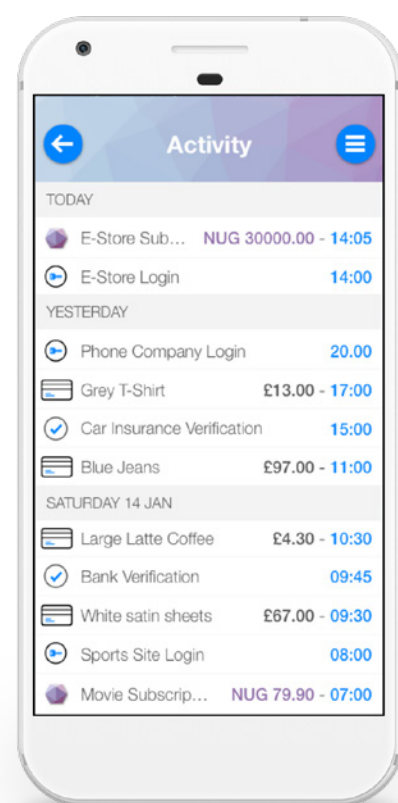
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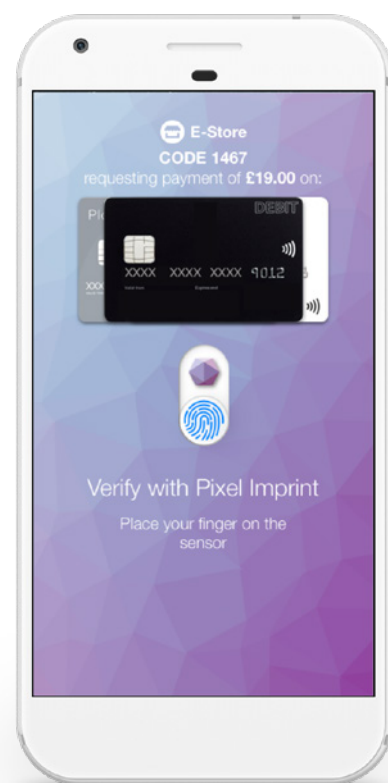
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INTRODUCTION

NUGGETS ENABLES PEOPLE TO TAKE BACK CONTROL OF THEIR DATA



Nuggets is a consumer blockchain platform with the power to revolutionise payment, privacy and security. It puts personal data back in control of individuals, enabling 'self-sovereign identity' on a mass scale. And it solves the biggest single headache for businesses: data security.

Nuggets was inspired by its Founder's personal experience of having his payment details used fraudulently – and the complicated, frustrating process that ensued. Nuggets solves this problem, using zero knowledge storage, encryption, privacy, security and trust, all combined with the immutable ledger that's decentralised. This creates an entirely new, blockchain-enabled platform for making simple e-commerce payments without having to sacrifice control of their personal data.

This is a consumer platform that everyone will use every day, to make trusted transactions with one simple, biometric verification. Those transactions go well beyond payments. Nuggets also enables secure login, ID verification and courier deliveries – with a many other applications and opportunities in the pipeline.

Nuggets solves a range of related critical issues for consumers and business alike:

PERSONAL DATA IS ABUSED AND AT RISK

- Merchant and business databases are prime targets for breaches
- Personal data is routinely used and abused by businesses

SECURITY OF PERSONAL DATA

- Stolen payment card details
- Stolen identity information

TRUST IN TRANSACTIONS IS ERODED

- Trust in consumers and retailers alike

MANUALLY UPDATING 100+ LOCATIONS

- Replacing expired credit cards
- Adding new payment cards
- Changing address details

PASSWORDS ARE NOT FIT FOR PURPOSE

- Dozens of sites = dozens of vulnerable passwords
- Hard to remember and manage
- Many people stick to the same one

As well as solving these problems, Nuggets is also the key to unlocking the vast potential of e-commerce – which is growing explosively across the globe.

In 2015, worldwide e-retail sales amounted to 1.55 trillion USD dollars. In 2021, those revenues are projected to grow to over 4 trillion USD. (Source: emarketer.com)

At the same time, the global mobile payments market is set to double between 2017 and 2019 – from 288 billion USD to over 690 billion USD. (Source: Ovum Mobile)

As a mobile platform, Nuggets connects directly into this vibrant market. It enables and secures payments using the most popular forms of online payment: credit cards and debit cards (Source: CIGI-Ipsos Global Survey) – as well as offering a value-add for popular digital payment systems like Android Pay, which can include Nuggets as a payment option instead of a payment card. Nuggets also enables payment by cryptocurrency.

Any online purchaser is a potential Nuggets user. From the dad with his little black book of passwords, to the individual who enjoys retail therapy but has the same password for everything. And these purchasers range across every age group. (Source: [Office for National Statistics \(UK\)](http://Office for National Statistics (UK)))

As a blockchain platform built to protect their data, Nuggets solves online consumers' most pressing worry. In a 2015 survey, the primary concern about online purchasing was the potential theft of personal data. (Source: B2B International)

Solving that worry is not only good news for consumers. For merchants, it also has the potential to unlock many more transactions.

Nuggets also makes transactions simpler – another key to boosting sales. Many online transactions never happen due to overly complicated processes, forms and payments (source: Digital Commerce 360). Nuggets users can pay with one simple biometric verification. That will unlock huge numbers of otherwise abandoned baskets.

Nuggets achieves these many benefits by using blockchain technology to revolutionise the way personal data is handled. The simple proposition to consumers is that you can use all the services you love, without having to share or store your personal data with anyone.

Instead, “nuggets” of personal data are encrypted in zero knowledge storage, in a blockchain. This means that not even Nuggets itself can access your data, and whenever possible none of your information is shared. When you do decide to share it, the platform shares the minimum required for the transaction.

These “nuggets” also have value. The more you use the service, the more Nuggets Tokens you'll accrue to pay for products and services. You'll also gain Tokens if you choose to share data – finally putting a real value on your personal information.

Transactions are encrypted, and use an immutable ledger with inherent trust principles, to validate trust in transactions with both consumer and merchant.

For consumers, Nuggets is a single, secure sign-on for payment, login and ID verification, with no tracking and selling your activity. Access is purely through biometrics: no more usernames or passwords. And if you need to update your details, you only have to do it once, in Nuggets.

For businesses, it means the end of vast, vulnerable databases of customer data, minimising the risk of regulatory and reputational issues. And it will hugely reduce losses from fraud, false positives and fraudulent charge backs, and increase revenue.

The Nuggets platform is agnostic, and will be available across e-commerce platforms and payment gateways. It can even be used in existing payment platforms: instead of entering an existing payment method, you could select “Nuggets” as an option.

Nuggets are a best-in-class team. The founders are former Global Directors of Skype and Microsoft, backed by a best-in-class blockchain development team.

Nuggets has already been selected by the Financial Conduct Authority (FCA) for Project Innovate, and is now testing with consumers in the regulatory sandbox.

SOLVING THE PRIVACY CRISIS

These days, the average person has sensitive personal data – emails, payment card details, home addresses, passwords – stored with over 100 online accounts. And that's set to double in the next five years.

At the same time, there are almost daily reports of data hacks and breaches, often involving millions of sensitive customer records. Earlier this year, for example, credit monitoring firm Equifax made news around the globe after hackers stole the personal details of 143 million Americans – almost half the US population. These details included Social Security numbers and birth dates: invaluable information for identity fraud. Equifax admitted that 400,000 UK records had also been illegally accessed in the same incident.

This devastating breach is just one of the more high-profile cases in a trend that has been growing almost exponentially year on year. Digital security firm Gemalto reports that 'Since 2013, over nine billion records have been lost, stolen or compromised.' Gemalto also discovered that over 1.9 billion records have been compromised in the first half of 2017 alone. (Source: [Gemalto](#)) Even the US Securities & Exchange Commission has had to admit that a hack from 2016 is still affecting its operations. (Source: [NPR](#))

"We've lost control of our personal data," wrote the web's inventor, Tim Berners-Lee [in March 2017](#). And the fact is, none of the existing 'solutions' are any good.

In May 2017, Barclays CEO Ashok Vaswani [acknowledged](#) the growing "digital safety gap" between the innovations of cyber criminals and consumer security measures. But his advice to consumers – to change passwords regularly – is clearly inadequate.

Even if everyone could remember to continually update their passwords across more than 100 accounts, it is impossible to be fully confident that those services are secure. How can we, when even large, established brands like Equifax and Yahoo, as well as governmental bodies like the SEC, have proven vulnerable? And a breach in just one account compromises all of them.

Given how dependent we are all becoming on online services and transactions, this is an urgent and growing issue for consumers. It's also a huge risk to business.

Regulation is tougher than ever. Starting May 2018 General Data Protection Regulation (GDPR) demands data minimisation, and allows for much harsher penalties than the UK current Data Protection Act. Fines can run to 4% of annual global turnover, or €20 million – whichever is greater. The US Federal Trade Commission Act (15 U.S.C §§41-58) is a federal consumer protection law that permits the Federal Trade Commission to bring legal actions against organizations that have violated consumers' privacy rights, or misled them by failing to maintain security for sensitive consumer information.

The reputational damage could be even more serious. How does a business win back trust after compromising millions of consumers' personal data?

Identity theft and card fraud are major factors, too. In 2016, card and identity fraud cost [\\$16 billion](#) in the US alone. In 2015, losses and revenue passed up due to false positives – genuine transactions mis-identified as fraud – totalled [\\$118 billion](#).

In short, we have a rapidly escalating crisis in online payment, privacy and security, affecting consumers and businesses alike. But no one has come up with a single, comprehensive solution, simple enough for consumers to use and yet powerful enough to address the overwhelming cyber security challenge.

Now, however, the founders and team behind Nuggets believe they have developed just such a solution: a consumer-friendly platform that will fundamentally transform the way we all interact and transact with online services.



A PERFECT STORM. AN IDEAL OPPORTUNITY

1. **Data security is in a critical state.** Hacks and data breaches have compromised billions of personal records in 2017 alone. Sometimes in a single incident.
2. **Fraud and 'false positive' card declines** cost companies millions in lost revenue and passed up revenue.
3. **Regulations are tougher than ever,** with the upcoming introduction of General Data Protection Regulation (GDPR) and the US Federal Trade Commission Act (15 U.S.C. §§41-58), among others.
4. **The average user has 100+ online accounts** – and that's set to double in five years.
5. **We'll all have biometrics** on our smartphones by the end of 2018.
6. **Technological advances.** Ethereum blockchain, zero knowledge storage and the immutable ledger make a solution possible. Nuggets is that solution.

OUR VISION: TAKE BACK CONTROL OF YOUR DATA

With Nuggets, anyone can take back control of their data. Instead of handing over payment and personal information, each individual can choose if and when to share data – and do so only on their own terms.

Nuggets returns power to the people. And it also liberates companies from the burden of trying to manage and secure huge data silos. By atomising those silos, it can remove the biggest challenge facing companies today: cyber security.

HOW NUGGETS WORKS

Instead of handing sensitive personal information to companies, to store in vulnerable databases, Nuggets encrypts personal information in zero knowledge storage in a blockchain.

That zero knowledge storage is essential to Nuggets. The user is the only person who can access the encrypted data – so there is no ‘backdoor’ through which third parties could access users’ information. Compare this to most modern storage systems, where there is usually a root-level admin access, which could be compromised.

This gives each user a personal cloud of data that no one can access – not even Nuggets itself. And the ‘nuggets’ of data you store take on genuine value through Nuggets Tokens, which you can accrue for use with product and services. The user’s Nuggets Tokens are recorded on a dashboard in the product.

Nuggets Tokens offer both a valuable reward for consumers, and a powerful commercial tool for merchants. Merchants can offer Nuggets Tokens as an incentive for purchasing products.

As users get Nuggets Tokens free for various actions, they can effectively get a discount when paying a merchant using those Nuggets Tokens. Using Nuggets Tokens is also a direct transaction. This massively reduces the merchant’s costs, which means they can offer discounts for customers paying in Nuggets Tokens.

For consumers, Nuggets Tokens offer much more versatility than conventional reward or retailer loyalty points, as Nuggets Tokens can be used anywhere in the Nuggets ecosystem. For example, the Tokens you receive for using a service might go towards clothes from an online store, or a supermarket delivery. That makes the original incentive especially appealing: imagine using your air miles with any flight company – or even for a new coat.

All Nuggets transactions are encrypted and stored in an immutable ledger with inherent trust principles, which validate trust in both the consumer and the merchant.

Every successful transaction is stored in a transparent manner – without revealing the contents or the context – through the use of a privacy framework. Over time, this builds a trust profile that shows the user is a good actor in the network and that their payment methods are good. The retailer also has to demonstrate that they are a good actor in the network too.

In business terms, Nuggets will generate revenue from day one, through a small retailer transaction fee (payable in tokens) and a revenue share (payable as fees) of savings made by merchants. The Token Sale will enable Nuggets to operate until it turns a profit. A small percentage of the transaction fee also goes to the retailer’s or consumer’s choice of charity.



THE FUNDAMENTALS FOR CONSUMERS

1. **Nuggets of personal data that only you own and control** are encrypted in zero knowledge storage in a blockchain.
2. **Transactions are encrypted, and use an immutable ledger** with inherent trust principles, to validate trust in both consumer and retailer.
3. **Get Nuggets Tokens** when you sign up, refer, pay, login or verify and if you choose to share information.
4. **Use Nuggets Tokens** to purchase products and use the services you love.
5. **Nuggets Tokens put genuine value on your information**, which you can use for products and services.

NUGGETS AND SHOPPING ONLINE

Shopping online is simpler and safer with Nuggets. Once you've chosen your items, you just choose the Nuggets option at checkout. This effectively logs you in, and the site pings your Nuggets app so that you can verify the transaction with your biometrics.

That completes the payment, and your package is on the way. You don't have to give your address (unless you wish to): we send a GPS location to the courier company. To accept the package, you simply confirm your identity when the courier pings your Nuggets app upon delivery.

If you're not around when they arrive, you can leave a unique QR code for the driver. They can use it to show they arrived, and tell you the next steps. Or you can use it to give them alternative arrangements.

Much has been said about how blockchain can be used for shipping and deliveries. With Nuggets, the consumer is in control. You know where the package is – not just where the courier says it is. Everything is fully transparent, and you can also feed back to the supplier and courier in a transparent, yet private, manner. It's private people logistics.

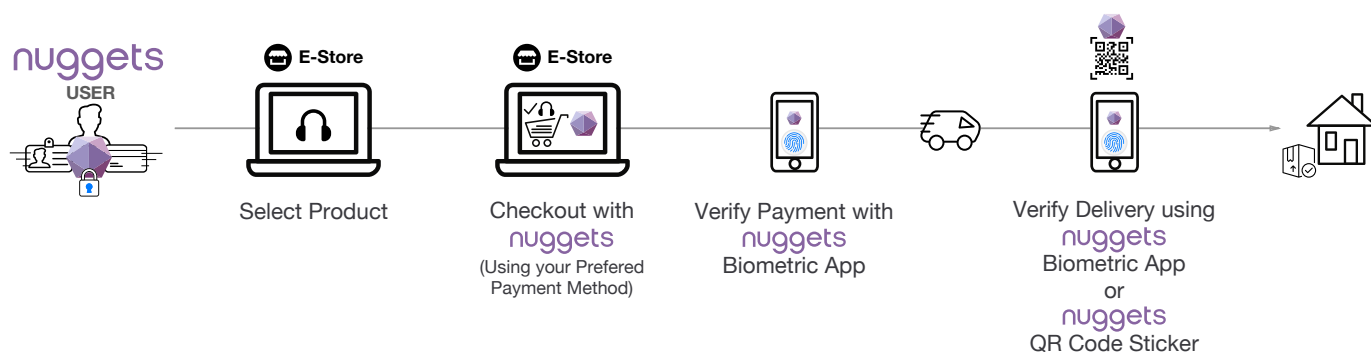
Importantly, while Nuggets keeps user data private, retailers will be able to track behavioural data at an individual level. So they can still personalise experiences in useful ways for the individual – without needing access to individual's personal data. This greatly reduces the potential for misuse of that data.

Nuggets users can also choose to share personal data with merchants in return for, say, discounts or offers. For example, a user could choose to share their personal email in return for receiving news of discounts, sales, etc.

EMAIL AND COMMUNICATION CHANNEL PROTECTION

Most merchants require email communications for invoices and communications. But Nuggets is all about keeping your personal information private. So we create a unique email to use with each merchant, which we then route back to your normal email to keep things simple.

What that means is that if that merchant is hacked, or the email address passed on, it would be blacklisted from any other source other than the specified merchant. So it's useless to anyone else. And no one steals or sells useless information.



CONSUMER BENEFITS

1. **No uncontrolled storing or sharing your data** – but still use the services you love.
2. **Privacy and security assured** by leveraging the blockchain and data encryption.
3. **Payment with existing methods and crypto currency** – including credit and debit cards.
4. **Single sign-on**, without tracking and selling your activity.
5. **Biometric access**: simple and secure.
6. **No passwords**, no social engineering, No hijacking Phone Accounts.
7. **Update everything at once**, instead of dozens of services individually.
8. **Rewards for loyalty and referrals**, which you can spend with any merchant in the ecosystem, as well as on charitable benefits.

BUSINESS BENEFITS

1. **Reduce fraud** – [\\$16 billion](#) has been lost to card and identity fraud in the US.
2. **Reduce false positives** – [\\$118 billion](#) has been lost or passed up in the US through false positives.
3. **Reduce fraudulent charge backs** – These currently make up [42% of retail fraud](#) losses.
4. **More transactions** – Thanks to greater peace of mind from trusted and verified transactions.
5. **Minimise regulatory exposure** – Massively reducing data silos means less risk of non-compliance with upcoming General Data Protection Regulation (GDPR) and the Federal Trade Commission Act (15 U.S.C. §§41-58) (FTC Act).
6. **Customize experiences using anonymous behavioural data** – offer the services users want, without compromising their privacy and security.
7. **Offer Nuggets Tokens as incentives** – Nuggets Tokens will be a valuable and attractive form of incentive, as users can spend them with any merchant in the ecosystem.



USER ONBOARDING PROCESS

Nuggets is simple for consumers to sign up for and use: a critical feature in ensuring the platform's success.

Once a user has signed up to the platform, transactions become as simple as selecting "Nuggets" (like any other payment service) and supplying biometrics in the app. No usernames, no passwords, no data to type in. [Watch a video of the process.](#)

Onboarding is a simple, one-off process:

1. Sign up using biometrics (no usernames or passwords)
2. Provide a photo ID
3. Take a selfie, which is compared to the photo ID for verification
4. Add a payment method, and enter the security code
5. Tap VALIDATE

This process verifies the consumer as a trusted Nuggets user. Retailers know they can trust that user's transactions – and that trust profile becomes stronger with every successful transaction. But retailers never have to store the user's information.

Nuggets acts as a validated proof of the person, their identity and their payment method. This also covers the merchant's requirement for Know Your Customer (KYC), but without storing or revealing private information to third parties.

On a customer services phone call, the agent can choose the Nuggets option to verify the user's identity. Their system pings the app, and the user confirms their identity with biometrics. Again, there are no security questions to work through; no need to work out the fourth, sixth and eleventh characters of a password.

Nuggets also spares users the laborious task of updating dozens of separate services with new details – such as a new address or payment card. Instead, simply updating Nuggets itself effectively updates everything.

TECHNOLOGY

Nuggets' technology is split into three distinct layers:

1. **Biometrics:** confirms user identity (without storing)
2. **Data encryption:** keeps data private
3. **Blockchain:** stores encrypted data in tamper-proof form

Combining these technologies allows us more control than a central corporate server to the user's device. Biometrics allow Nuggets to verify the user on their device, without retaining the required data outside the device. The Nuggets software enables the device to be used in this way, and the encryption itself is done on the user's device. That means the user is in sole control of who can decrypt the data.

Finally, blockchain ensures that we are not dependent on any one entity (including Nuggets itself) for storing or maintaining the integrity of the data – which means they also can't compromise it.

One of the core principles of Nuggets is future-proofing. In practical terms, this means that we have designed a solution that works today, but we are also fully aware that all three areas of Nuggets' technology (biometrics, encryption and blockchain) are evolving rapidly, so we are ready to adapt the platform as they do so.

BIOMETRICS

For example, biometrics checks can be plugged into our system. As our devices, and the biometrics checks they provide, become more sophisticated and reliable, so Nuggets can improve and utilise these to secure its underlying transactions.

Today, we use biometrics for a multi-angle face scan combined with ID document forensic scan and OCR (optical character recognition) for initial KYC. The user then uses on-device biometrics, such as fingerprint scan and facial recognition for subsequent authorisations. As more sophisticated techniques, including vein matching, are developed and become more reliable, these can be incorporated in the overall Nuggets solution.

Once the KYC checks are complete in Nuggets, biometrics will only ever be stored on the user's device for native biometrics authentication.

PRIVATE KEY STORAGE

The user identity in Nuggets is underpinned by the private key stored on device. This private key will be stored in a hardware secure enclave (HSE) on devices / operating systems where this is provided by the manufacturer. The HSE provides a hardware secure storage controlled by native biometrics, ensuring that the Nuggets private key cannot be compromised by any software (such as malware, rogue apps, etc) on the user's device.

KEY RECOVERY

If a user has to replace their device (if it's lost, stolen, repaired or upgraded, etc),

Nuggets provide a secure key recovery solution. This allows the user to recover their key securely. Nuggets cannot create a new private key.

Keys are generated and managed outside the blockchain, and are therefore agnostic of the underlying blockchain platform.



DATA ENCRYPTION

Nuggets encrypts all the user's personal data on their own device before it's sent to the blockchain. That means the encryption/decryption occurs outside the blockchain, so it's agnostic of the underlying blockchain platform.

Data is only available for decryption by those parties (keys) specified by the user. During an ecommerce purchase, for example, a merchant cannot decrypt a user's credit cards details – only a card payment processor has access to the secure EMV card token. Similarly, the merchant's key does not give them access to the consumer's delivery location. That is only available to the key belonging to the courier, and is ideally sent in the form of GPS coordinates rather than a plain text address. In this way, nuggets of information are isolated and only shared as required and permissioned by the user.

The system dynamically generates and shares encryption / decryption keys. The anonymity this provides, combined with zero knowledge storage and a privacy network, lays the foundation for GDPR compliance in a blockchain solution. Encryption techniques are evolving – in particular with advances in quantum computing, homomorphic encryption and zero knowledge proofs (zkSNARKS). While these technologies are still nascent, and in many cases not yet ready for mass market adoption, we already include them in our research, to ensure that Nuggets is engineered in a way that will allow us to include and adopt them as they mature.

For example, as quantum proof encryption algorithms become available, we will look to use these to underpin personal data storage. Similarly, as homomorphic encryption and zkSNARKS mature, we will look to provide independent integrity checks on the data in our smart contracts, without revealing the underlying data.

BLOCKCHAIN

The blockchain in Nuggets is used to ensure that the underlying storage of the nuggets of information is not controlled and cannot be removed/destroyed by any one party. The blockchain also provides a platform for the Nuggets token.

Nuggets is issuing an ERC-20/223 token on the Ethereum public blockchain network to power the underlying transactions. Ethereum has always been the platform of choice for Nuggets, although the data storage architecture is in place to evolve to future versions of Ethereum, or any other blockchain platform, as scalability improvements are made.

To avoid undue load on the current public Ethereum network, data storage aspects of the Nuggets solution will initially be hosted in a private / consortium / sidechain / channel. Nodes will be distributed to a set of independent partners in the Nuggets ecosystem. Each node will hold a copy of the data, but that data will not be accessible to anyone but the user, thanks to the encryption. All users will have visibility / transparency of ledger integrity, and the side chain /channel will be pegged to the public Ethereum network. As the public blockchain becomes more scalable, and/or improved scalability options become available (e.g. Polkadot, Raiden channels or sharding), Nuggets will look to adopt these to provide a more trustless solution.

[IPFS](#) may be used alongside Ethereum at a later stage for larger data / document storage. Encryption/decryption of data stored on IPFS will be handled using exactly the same mechanisms as for data stored in the smart contracts, with full control of their data on the decentralised platform provided to the user.

TOKEN ECOSYSTEM

Nuggets Tokens

At its heart, Nuggets is a Tokenized system. A Nuggets user will accrue Nuggets Tokens (NUG) from day one, by downloading the app and using the platform in various ways.

Building up Nuggets Tokens

Users will receive Nuggets Tokens as a reward when they sign up, refer someone, to Nuggets, log in, make a payment or verify their ID. They will also receive Nuggets Tokens if they choose to share certain “nuggets” of their private data.

Value your information

Currently, users routinely give away their valuable information to dozens of companies, in return for using the services they loved. But Nuggets Tokens will put a real value on that information, reflecting the enormous value it has to companies.

Using Nuggets Tokens

Consumers can use their Nuggets Tokens to buy physical and digital products and services from Nuggets-enabled merchants. So Nuggets Tokens have genuine value.

HOW CONSUMERS WILL BE ABLE TO USE NUGGETS TOKENS

Products:

- Pay for physical and digital products from e-commerce stores
- Part-payment for products from e-commerce stores
- Pay for subscriptions

Services:

- Transport
- Utilities
- Communications

HOW MERCHANTS WILL BE ABLE TO USE NUGGETS TOKENS

Products:

Pre-pay for Nuggets service

Services:

- Pay transaction fees for payments fulfilled through Nuggets
- Pay for Customer Login services
- Pay for Customer ID verification
- Pay for future Nuggets services

CHARITY

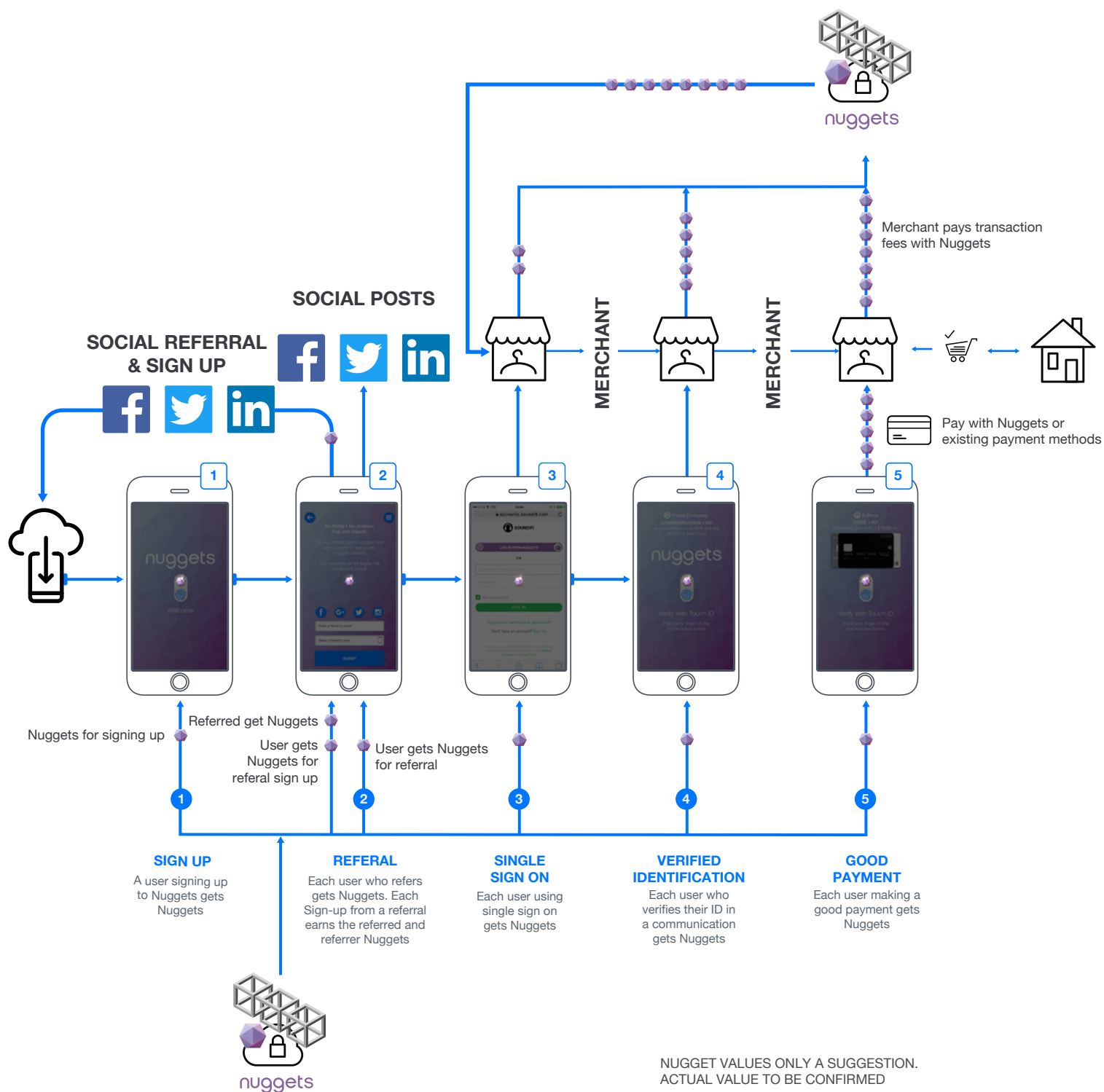
Nuggets will give part of each transaction fee to charity. At any time, users can also use Nuggets Tokens to donate to a list of charities selected by Nuggets.

EARNING NUGGETS TOKENS FOR SHARING DATA

Users will also be able to earn Nuggets Tokens from merchants by sharing personal data with those merchants. For example, a user might share their email address with a merchant (with the option of the right to be forgotten) in return for a discount and Nuggets Tokens. Or the user might share their first name, or a chosen representative name, to receive communications like sale notices, in return for Nuggets Tokens from the merchant.

As a user continues to use the platform, they build up more and more “nuggets” of information to their profile, all securely protected by zero knowledge storage. Nuggets gradually becomes more powerful – either by being able to provide data the user chooses to share without the user having to re-enter it, or by validating a user’s identity with more services through the trust network.

Users win both ways. If Nuggets can validate the user’s identity through the trust network, there’s no need for the user to share any data with a merchant. Or, if a user chooses to share data, the user will be rewarded with Nuggets Tokens, which can be used to buy products and services.



LAUNCH STRATEGY AND AUDIENCES

The Nuggets platform will launch in the UK and US in 2018. Many of the merchant and payment partners involved in the launch are global players, and Nuggets is also exploring new partnerships in other markets.

Recent successes in the digital payments space show that, even in this busy and maturing market, any platform offering a genuinely simpler, faster, friendlier way to pay can gain considerable consumer traction.

The commercial offer to potential partners is equally compelling. Nuggets promises to add significant value to existing market players, rather than simply competing with them. Many such businesses have already recognised the potential of the platform, and Nuggets teams are in discussions with major global banks, merchants and payment services. In several cases, these discussions include formulating joint go-to-market strategies.

Nuggets has two key audiences:

CONSUMERS

This is a busy and confusing market. Nuggets will be the game-changer that offers the combination of trust and ease that consumers crave.

Nuggets not only makes individual transactions simpler, it transforms the whole experience of managing and using personal data online. Consumers will not need any understanding of the complex technology involved to appreciate the leap forward Nuggets offers in simplicity and security.

We are launching Nuggets to the adult market: those aged 18+. And we will segment that audience attitudinally, rather than by age:

1. Those concerned about online privacy and security
2. Those who want to pay online simply
3. Those who want to simplify their online identity

At launch, we will focus this further, to concentrate on the launch partners' customer bases.

Organic growth through user referral

To drive adoption, early Nuggets users will be rewarded with Nuggets Tokens when they download the product, refer friends and use Nuggets to pay, login or verify their ID with retailers and service providers.

This will help Nuggets create strong relationships with its users from day one. Rewarding users ensures they feel valued, and see the value in Nuggets. And referral is an authentic way of building brand awareness and positive reputation.

The more a user uses Nuggets and refers friends and family, the more Nuggets Tokens they accrue and can use for products and services.

Building user loyalty and organic growth

The Nuggets Community program will underpin all communications. This programme will focus on forging real and strong relationships with our audience and partner audiences, to encourage them as product developers and brand evangelists, spreading the word and bringing on their friends and family. This will be supported by key influencers advocating key product features to drive their audiences to Nuggets.

Right-time, performance marketing

We will run a mobile-first, paid media plan targeting payment providers and retail partners, as well as tech-savvy customers. We will lead with a relevant and informative content marketing strategy, to fuel social conversation and conversion.

BUSINESS: BANKS, CARD SCHEMES, AND RETAILERS AND THEIR USER BASES

We will launch with universally trusted, frequently-used payment providers and retail partners – including those with a history of data breaches that need to recover trust with their user base. These brands are on a journey of transformation, as they proactively address the data security crisis and aim to reduce fraud, at the same time as offering more efficient tools for their consumers.

The more partners we sign up, more users we can convert into Nuggets users. We'll use the member-get-member and sign-up incentives described earlier to drive customer conversion at launch.

Partnership criteria

PARTNERSHIP	OBJECTIVES	CRITERIA
Launch Partners	Engage market leaders/ catalyst for change who will influence other partners to integrate with Nuggets	<ol style="list-style-type: none">1. Large web or app-based audience in the UK, US, Global2. Frequent customer purchase rate3. Mobile-first user base4. Large web or app-based audience in the UK and US5. Frequent customer purchase rate6. Mobile-first user base
Post Launch	<p>Increase frequency of use per current user</p> <p>Attract new users</p>	<ol style="list-style-type: none">1. At least part-shared audience with Launch Partners (increase frequency of use by offering more opportunities for the user)2. Large web-based audience with growing mobile base in the UK, US and other markets3. Regular customer purchase rate4. History of hacking / fraud

NUGGETS WILL BE DISTRIBUTED THROUGH FOUR MAIN SOURCES:

For consumers: through apps

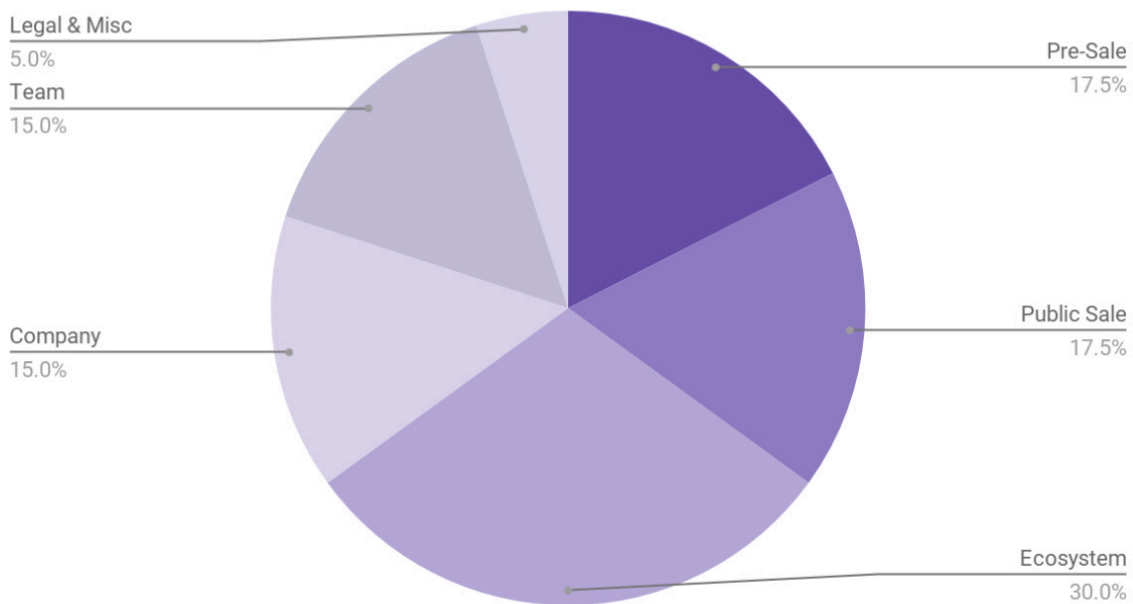
1. The Google Play Store for Android devices
2. The App Store for iOS devices

For business: through APIs

3. Banks and card schemes
4. Partner retailer sites: alongside current payment methods

TOKEN SALE FUNDING

Proposed Nuggets Token Allocation



Once the platform is launched, the ecosystem will focus primarily on creating a network effect amongst retailers and users, and on attracting more participants to the platform. To that end, Nuggets intends to sell 35% of all Nuggets Tokens (NUG) during its pre-sale and public Nuggets Token sale to fund platform development, partnerships, platform launch and commercialization of Nuggets.

Nuggets intends to set aside 30% of all Nuggets Tokens as incentives, and for use in the ecosystem. Nuggets intends to keep 15% of Nuggets Tokens as long-term reserves with a one-year lock up, and 15% for Nuggets employees with a two-year lock up, and 50% vesting after one year.

Nuggets intends to reserve another 5% of the Nuggets Tokens for legal, regulatory, and miscellaneous costs leading up to the platform launch in each market.

Some early retail adopters may receive Nuggets Tokens, to pay some fees and to capitalise on the network effect as the ecosystem grows. Nuggets will control such distribution to protect the economics of the ecosystem.

Nuggets will also release a proportion of Nuggets “Team Tokens” to existing employees and consultants and as and when new members join the team.

“Company Tokens” are long-term reserves with a one-year lock up. There is no intention of releasing these onto the market in one go. They will be released as and when required in a controlled manner that benefits the ecosystem as a whole.

A final 5% of the total Nuggets Tokens will be used to cover legal, regulatory and miscellaneous costs leading up to launch in each market. These will be sold as and when required to cover service provider expenses.

PURCHASING NUGGETS TOKENS

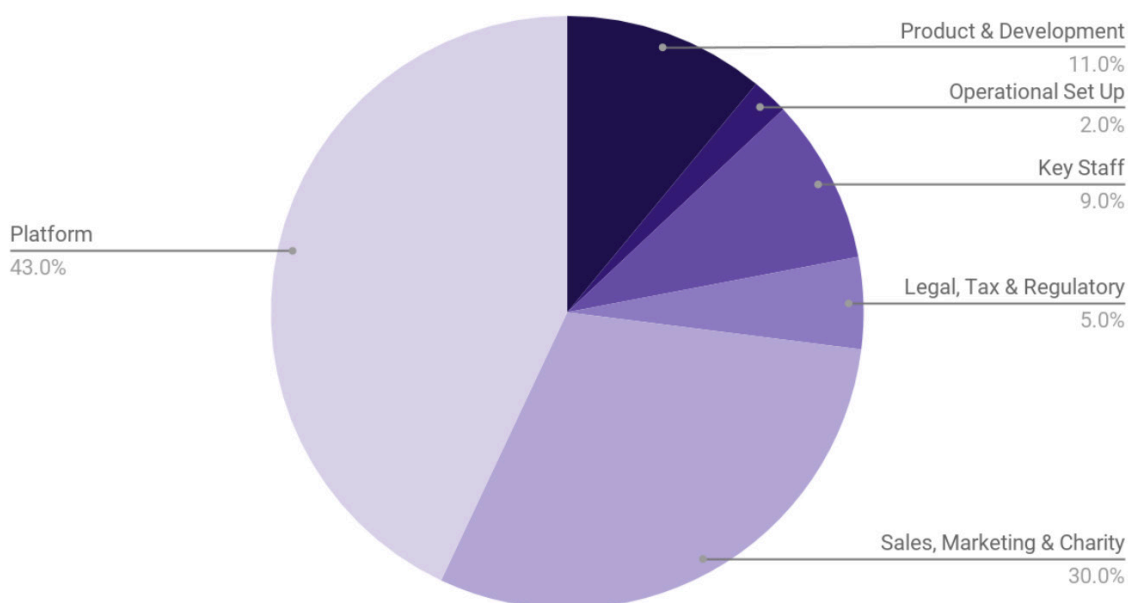
Buyers will be able to purchase Nuggets Tokens with BTC, ETH and USD, starting in the pre-sale, which is scheduled for launch on October 24th, 2017. This will be open to US and non-US residents alike. The pre-sale has a minimum purchase of \$25,000 if purchasing with USD, no minimum for BTC / ETH purchases and no maximum purchase.

17.5% of the Nuggets Tokens will be available at a 20% discount in the pre-sale. The other 17.5% will be sold in the public sale, which is scheduled to start in Q1 2018. In total, Nuggets will issue 10 billion Nuggets Tokens at launch, with 3.5 billion sold in the pre-sale and public sale.

The Token Sale will run for 30 days from the launch of the Public Token Sale or until a maximum number of tokens has been sold, whichever is sooner.

The proceeds from the token sale will fund continued platform development, partnerships, launch and commercialization of Nuggets.

Use Of Proceeds

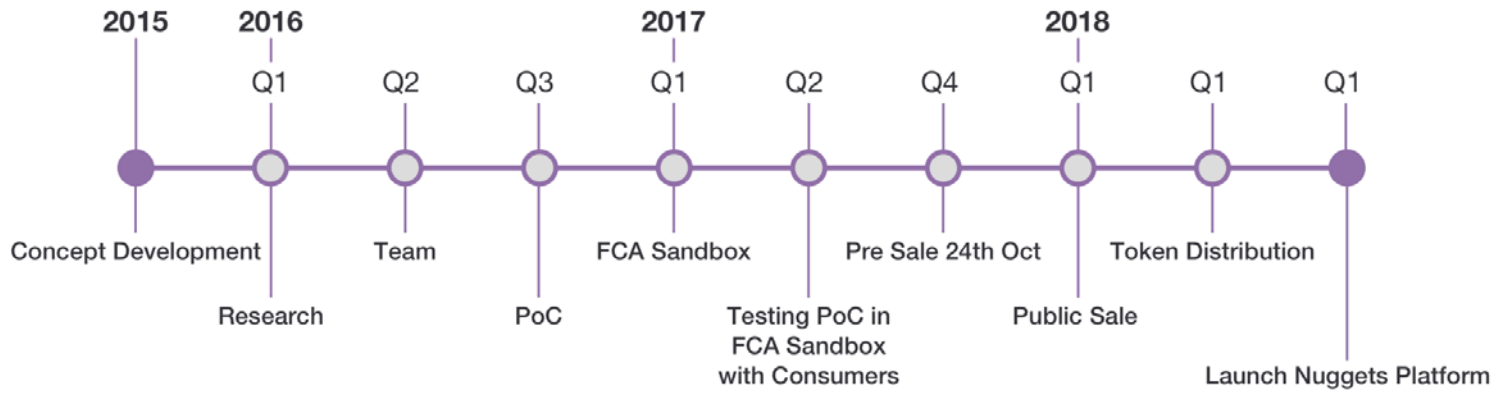


OVERVIEW OF THIS OFFERING

NUG TOKEN	An ERC20 smart contract for use as a unit of account and means of exchange between consumers and retailers on the Nuggets platform
TOKENS OFFERED	A total of 10 billion tokens will be issued with 1.75 billion sold in the pre-sale at a 20% discount and 1.75 billion sold in the public sale. A total of 3.5 billion tokens will be available in the Token Sale. The Token Sale will be hard capped at a total raise of approximately USD \$50 million to fund the platform launch and carry Nuggets to profitability
PRICE PER UNIT	USD \$0.013 per NUG token in the pre-sale and USD \$0.016 per NUG token in the public sale
CURRENCIES ACCEPTED	BTC, ETH and USD. Subscribers for NUG Tokens using USD must purchase a minimum of \$25,000 in NUG Tokens
PRE-SALE	Commencing on October 24, 2017. \$25,000 minimum purchase if purchasing with USD, no minimum for BTC / ETH purchases
PUBLIC SALE	Commencing in Q1 2018. \$25,000 minimum purchase if purchasing with USD, no minimum for BTC / ETH purchases

DEVELOPMENT ROADMAP

KEY DEVELOPMENT MILESTONES FOR NUGGETS



FEATURES, INITIAL AND FUTURE RELEASES

Nuggets product features expected roadmap

FEATURES	LAUNCH	POST LAUNCH
Secure payments		
Reduced card fraud		
Reduction in False Positives		
Prevent fraudulent chargebacks		
No passwords – all biometrics		
Trusted reputation model		
Own and control your identity (zero knowledge storage)		
Single sign-on		
Platform and device agnostic		
Rewards for referral and loyalty, and charitable benefits		
Protects email identity		
Cryptocurrency		
Verify ID for customer services		
NFC		
Virtual credit		
Shipping location direct to courier		
Integrate with existing payment tools such as Android Pay		

THE TEAM

Nuggets is led by two highly experienced founders, who have gathered a passionate, expert team of specialists.



Founder and CEO Alastair Johnson

Alastair has spent over 25 years as an entrepreneur and innovator, almost entirely in digital innovation: taking big ideas and design through to delivery. With deep knowledge across technical, production and commercial areas, he has led global integrated product development and product marketing for brands like Microsoft, Skype, Office, Xbox, Hololens, Disney, TED and the BBC. He has created and led multi-disciplinary global teams in both start-ups and multinational businesses, both client and agency side.



Co-Founder and COO Seema Khinda Johnson

Seema has over 18 years' strategic experience leading teams and delivering large-scale commercialization, products, campaigns and projects. She has successfully launched global products across many regions and cultures for brands like Skype and Microsoft, achieving major user engagement and acquisition.



CTO Adi Ben-Ari

Adi is respected within the blockchain development community with over 20 years' hands-on experience designing, developing and leading technology solutions and teams. He has worked across the telco and fintech sectors. A blockchain expert, Adi is CEO of Applied Blockchain – a team of blockchain professionals focused on creating real-world applications that harness the unique properties of the blockchain. Together, they have delivered platform-agnostic products and privacy/security frameworks that deliver real business objectives.



Senior Strategic Advisor Joshua J. Bouw

Joshua develops new partnerships and advises on Nuggets' technical strategy. An innovator of blockchain technology, he established Blackcoin – the world's first 100% proof-of-stake currency – in 2014.

Joshua was the receiver of the first ever smart contract, as one of those involved in the BlackHalo and BitHalo smart contracting platform. One of the godfathers of proof-of-stake, Joshua is a popular speaker on alternative currencies, and has represented altcoins at OKCoin and Huboi events.



Senior Strategic Advisor Sally Eaves

Sally drives Nuggets' global strategic partnerships. She has a wealth of experience in the worlds of payments, FinTech and blockchain, and is consistently rated in the top 10 for blockchain and social media influence worldwide.

A member of the Forbes Technology Council, Sally is highly experienced Chief Technology Officer, Practising Professor of FinTech and Founder, specialising in disruptive technologies. She is also an accomplished author, and her latest book, *Edge of Disruption*, will be out in 2018.



Take part in the token sale and find out more on Telegram: <https://t.me/nuggetsblockchain>

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Payments & Fraud Diarmuid Considine

An award-winning risk management leader with over 15 years' experience in the telecomms and digital goods industries, Diarmuid has a deep understanding of daily operational issues in multinational companies like Skype, Microsoft and Mastercard. Internationally recognised as a leading expert on fraud and payments, he has served on the board, and as Chair of the European Advisory Board, at the Merchant Risk Council.



Customer Experience Mark Nichols

Mark is a customer-centric, strategic leader with deep delivery experience and a record of transformation and benefit realisation at a global scale. A board-level influencer, he has executed numerous performance improvement strategies and investible end-to-end customer experience initiatives across multiple channels, markets and languages. Mark has held numerous senior leadership roles in organisations including Telefonica, Skype, Microsoft and is currently the VP of Customer Experience at Virgin Mobile USA.



Financial Services Steve Castle FCA

With 35 years' experience in international financial services, Steve has held leadership (board level) positions at a range of companies including LV= General Insurance (which he helped to grow five-fold, into the UK's third-largest motor insurer) and RBS Insurance. His wide-ranging experience encompasses work in over 20 countries, and considerable experience of acquisitions and disposals, as well as integration. As an entrepreneur, Steve has also co-founded, developed and sold two financial services businesses of his own.



CFO Robert Seok

Rob has been a finance professional for the past 18 years, specialising in media and tech. He has worked in many multinational organizations such as KPMG, UBS, BT, and Virgin Media, in roles ranging from commercial strategy to pricing. He has also helped a tech company successfully IPO on the AIM, in exceptionally challenging conditions.



CMO Andrew Amadeo

Andrew has worked in advertising and marketing for 28 years – 18 of them at management level. He's led and produced award-winning, innovative work for global brands like Nike, Unilever, P&G, Honda, InBev and Diageo. In recent years, has specialised in multi-channel, integrated consumer campaigns. As a former Creative Chief of Collett Dickinson Pearce, Mustoes and Grey London, he offers a wealth of knowledge, across marketing, creative and leadership perspectives.

CONCLUSION

Nuggets will revolutionise the way we pay online, login and verify our identities. It will give people control over their personal data, and make it easier to use the services they love.

By bringing trust and peace of mind to online transactions, Nuggets promises to make them quicker and simpler. And to unlock millions of new transactions currently not made because of security fears, complicated processes or false positives.

Nuggets will save companies billions in fraud, false positives and fraudulent charge backs, and will minimise their regulatory exposure by hugely reducing the currently enormous silos of customer data.

Nuggets is not simply a new product. It is a fundamental change in the way online consumer transactions work, worldwide. It's the future.

nuggets.life

LEGAL NOTICE

Nothing herein constitutes an offer to sell, or the solicitation of an offer to buy, any tokens, nor shall there be any offer, solicitation or sale of Nuggets tokens in any jurisdiction in which such offer, solicitation or sale would be unlawful. You should carefully read and fully understand this white paper and any updates. Every potential token purchaser will be required to undergo an on-boarding process that includes identity verification and certain other documentation, which you should read carefully and understand fully because you will be legally bound. Please make sure to consult with appropriate advisors and others.

This white paper describes our current vision for the Nuggets platform. While we intend to attempt to realize this vision, please recognize that it is dependent on quite a number of factors and subject to quite a number of risks. It is entirely possible that the Nuggets platform will never be implemented or adopted, or that only a portion of our vision will be realized. We do not guarantee, represent or warrant any of the statements in this white paper, because they are based on our current beliefs, expectations and assumptions, about which there can be no assurance due to various anticipated and unanticipated events that may occur.

Please know that we plan to work hard in seeking to achieve the vision laid out in this white paper, but that you cannot rely on any of it coming true. Blockchain, cryptocurrencies and other aspects of our technology and these markets are in their infancy and will be subject to many challenges, competition and a changing environment. We will try to update our community as things grow and change, but undertake no obligation to do so.