



Fitting Humanity into its new Quantum-Cyber world

BitMint Technology Quantum-Grade Solutions Co.

(temporary name)

Data Oriented Company

a hub that enhance governments, enterprises and individuals' resilience



Amnon Samid
+972544200400
Amnon@BitMint.com

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Confidential
For review only by:



BitMint



Cyber
Finance



Cyber
Security



Cyber
Further

Unique Digital Quantum Technologies for Unique Purposes
Cyber Money + Quantum Randomness + Quantum Cyber

- ❑ BitMint developed cyber security tools based on high-quality randomness for connected devices, the sharing economy, data protection, and legacy-friendly digital cash.
- ❑ BitMint adjusts its security to the threat and uses data-sourcing technology to catch identity thieves when they attempt to use the victim's personal data.
- ❑ BitMint brings a new cyber security paradigm for resiliency, protecting Big Data, Communication and Network, enabling Battery-friendly IoT; Zero information-leakage communication; Preventing mass Identity Theft and the risk of compromising irreplaceable biometric data.
- ❑ BitMint Driving financial inclusion and resilience, building local and cross border Cyber Financial Systems: financial, credit, debit, payments, remittances, loyalty, digital money, investment, saving, securitization, IoT auto payments, special purpose money and infrastructure, addressing special challenges of underserved customer segments.





01

Technologies

Rich application scenarios – international trade, Securities etc.





01 Technologies

Rich application scenarios – international trade, Securities etc.

- ❑ Big Data
 - ❑ FinTech
 - ❑ Network Security
 - ❑ E-commerce
 - ❑ Digital Currency
 - ❑ Artificial Intelligence
 - ❑ Supply Chain
 - ❑ Blockchain
 - ❑ Homomorphic encryption
 - ❑ Smart contracts 智能合约
 - ❑ Internet of Things 物联网

Technologies do not use any kind of complex cryptographic algorithms, that crash against quantum computers, but uses equivocation to provide very high (provable) **security - - ready for post quantum era.**

PATENTS, TRACTION AND AWARDS

TRACTION


Our **cyber Security solutions** based on pure randomness were acknowledged by

 **WEF - The World Economic Forum.**
<https://www.weforum.org/agenda/2017/11/what-a-100-year-old-idea-can-teach-us-about-cybersecurity>

And by
 **Bank of Shanghai**
That used and successfully tested our solutions
http://finance.ce.cn/bank12/scroll/201812/24/t20181224_31100575.shtml?from=singlemessage&isappinstalled=0

And by
 **German standard institute TÜV**
Information Technik
IT security Evaluation Body

Our payments solutions were praised By
 **the EBI - European Banking Institute**
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3153760

 And pronounced in Germany as the 'only digital money solution that satisfies all the criteria for digital money' in a Springer book



19 granted patents

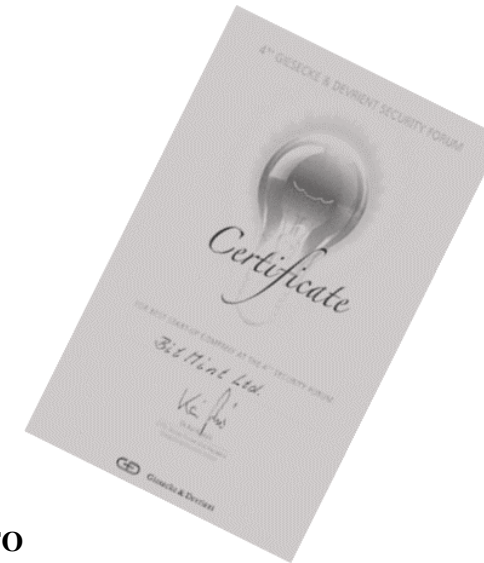


19 granted patents
Apart from More than
45 applied patents under
examination by patent office

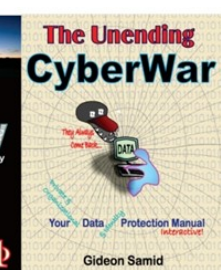


AWARD

BitMint was awarded the First Prize in an international contest for financial and security technology innovations conducted by the German concern Giesecke + Devrient.



BOOKS WRITTEN BY CTO



CORE TECHNOLOGIES

BitMint opened a technological gap that would make it difficult for competitors to catch up. The mission of BMTS is to translate these technological advantages into commercially viable profitable projects

Overview: ✓

BitMint is a technology hub pioneering novel thematic innovation through the methodology of Artificial Intelligence Assisted Innovation (AIAI). Combining material sciences and computer sciences, with financial insight, and recognizing quantum randomness as the cyber oil that powers cyberspace, BitMint is marching on with 17 awarded patents and about three dozen more in the pipeline. We focus our new technology on the dramatic promise of cyber finance, and secure exchange of value.



Replacing Rigidity and Complexity with Randomness and Simplicity

Technology Strength

BitMint developed cyber security solutions consisting of physical security products and software programs for protecting and recovering networks, communication and data-centers. BitMint contributes to autonomous computing and cloud services.

- BitMint offers Uninterrupted Payment solutions online and offline, not dependent on network availability. BitMint technologies fits centralized and decentralized regimen, exploiting benefits of both, escaping pitfalls of each. BitMint Tethered Money tailors money to its intended purpose.

Embedded Info

- Zero information-leakage communication
- Preventing Identity Theft
- Artificial Biometric
- Document management
- Network recovery technologies
- PQC

We are strongly focused on making sure that our products really fits users' needs.

Building Global Secure Cyber Exchange Systems

BitMint developed cyber security solutions consisting of physical security products and software programs for **protecting and recovering networks, communication and data-centers.**

BitMint contributes to autonomous computing and cloud services.

- ▶ Our mission is to commercialize BitMint's relevant technologies to contribute to societal wellbeing in cyber space by offering **enterprise solutions** for secure identity, communication and data repository.
- ▶ Technologies do not use any kind of complex cryptographic algorithms, that crash against quantum computers, but uses equivocation to provide very high (provable) security ready for post quantum era.
- ▶ Building the new security universe for the fourth industrial revolution.
- ▶ The technologies are achievable.
- ▶ Vaccinating security systems with Quantum Randomness, to defend against attacks from quantum computers.
- ▶ In most applications the user is not required to replace infrastructures.
- ▶ Users determine the level of security for their use by determining the amount of randomness allocated for safeguarding their data.

BitMint developed a new financial alphabet to write and secure Money

BitMint financial alphabet designed to insure secure money transfer that is useful for legacy money, preventing fraud and misuse, offering quantum-safe transmission.

It is also the foundation of the emerging digital money technology, retail and wholesale CBDC as a legal tender with -

- universal accessibility,
- providing continuous payment capabilities
- not dependent on network or Internet availability,
- not dependent on smart phones,
- enables authentication without backtracking the money up to the issuer,
- **providing controlled privacy, from full anonymity up to full traceability, including chain of custody written on the coin itself,**
- ensuring payments anytime anywhere not dependent on network of peers or Internet availability.
- **Eliminating counterfeiting, Money laundering, or using money for illegal acts.**

The same framework provides -

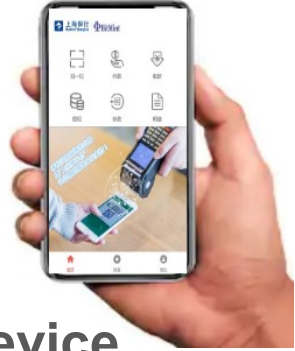
- Purpose Driven Money/coupons
- Money with expiration date
- credit,
- debit,
- escrow,
- smart contracts,
- fair taxation,
- any financial instrument,
- fairly allocate scarce industrial resources and risk-allocation.
- Unlike all known cryptocurrencies, it does not rely on algorithms that could be cracked by quantum computers.
- It is centralized and it is designed to replace the current (hackable) language of money with a better language that is **mathematically proven to withstand cryptanalytic attacks.**



Battery Operated Tethered Money Payment

BitMint®

BitMint executed the Q-pay successful project with the **Bank of Shanghai**



1 Quantum Randomness Security

4 The transfer of value can be offline, based on battery device

2 Highly scalable centralized authentication

5 Payment is independent of the bank account and the network

3 The Mint has absolute control

6 The coin can applied in all the financial trade (financial instrument and international financial activity)



Replacing Rigidity and Complexity with Randomness and Simplicity

Main BitMint's Qpay project contributions to the payment and monetary scene

BitMint has upgraded the form of currency, making fiat currency easier to obtain, use, and carry, and the settlement efficiency is higher,.

BitMint Digital money focuses on fitting the basic attributes of currency to make up for the disconnect between the old currency system and the new digital economy.

BitMint always maintains a stable currency value, which is 1: 1 equivalent to relevant fiat currency.

BitMint's technology enables to confirm that each transaction is authentic and that the digital assets will be fully traceable.

BitMint digital currency is equipped with smart contracts capabilities in the coin itself and is the best choice for exchanging and pricing digital assets.

BitMint retains the basic characteristics of controlled anonymity, Quantum security, non-counterfeiting, and anti-Money laundering, eliminating the possibility of digital currencies participating in illegal acts, through its quantum randomness generation process and distribution management model and technical architecture.

Useable true randomness for ultimate cyber-quantum security

The Rock of Randomness

Will insure originality of precious materials (wine, medicine),

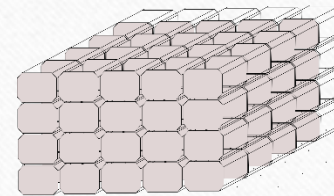
Gold-trade,

digital Coupons,

digital money paid off-line,

etc.

Rock Assembly



Input:

True randomness, captured in material composition, so no one and no computer can crack it.

Output:

Digital quantum-resistant bits, easily measured, captured, stored, transferred.



02 Use cases examples



02 Relevant use cases



- **Seal Virginity solution to support industrial supply chain, insuring integrity of items exposed to untrusted or unknown handlers.**
- **Network Penetration Prevention** and springboard for quick recovery of a compromised network.
- **Preventing attacker** from taking control of **autonomous car**.
- **Bionic Fingerprint:** replacing your thumb with a Replaceable bionic finger.
- **Securing Data Communication** content and hiding Pattern of communication to enable most secure remote work.
- **Document management of trading or any other sensitive data, like Health-care:** keeps everyone reading only what is intended to read, while maintaining one single shared document.
- **Preventing Durable Identity Theft.** Using data-sourcing technology to catch identity thieves when they attempt to use the victim's personal data.
- **InsurTech solution** to insure that insurance companies pay-off is used for its declared purpose.
- **Digitized Coupons, Gift cards, Reward cash, Loyalty points** to be stored on consumers' phone as a means to leverage current customers to bring in more customers.
- **Embedded payments** – like electricity charging (according to the amount of the Kwh) and machine to machine auto-payments for the internet on things.
- **Trading gold** with digital claim checks. Easy trading P2P any portion of the gold.
- **Real Estate** assets easy liquidity and partial ownership trading.
- **Building Blockchain** to connect digital money Mints.
- **Hard wallet** to enable a stable payment regime through short or long periods when the Internet is down (natural disasters like earth quakes, accidents, terrorism).

BitMint Cross Border payments

Security * Reconciliation * Accountability



A digital coin may be cryptographically 'fused' with pre defined terms of payment, preventing misuse, holding off corruption, frustrating fraud.

The large sums of money that flow between global and national banks is a persistent attractive target for electronic thieves.

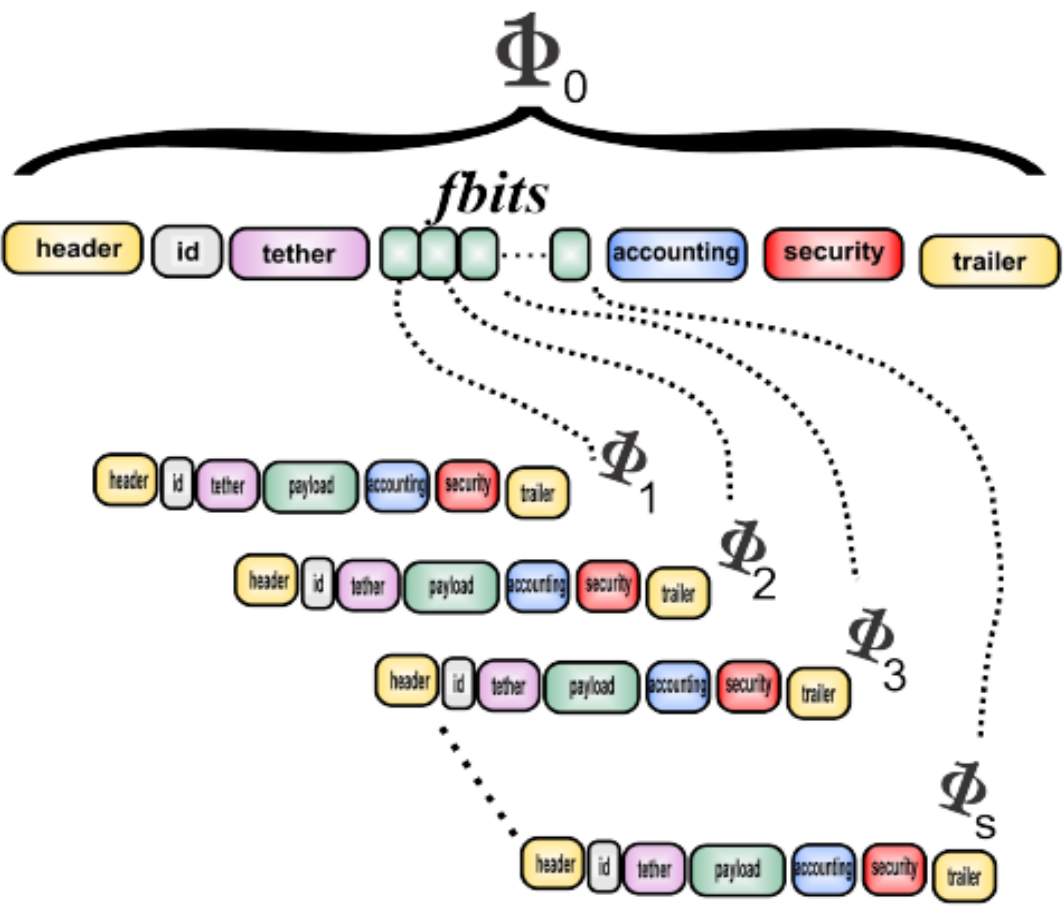
Such transfers are validated by backtracking the history of the money which is the tedious effort of reconciliation.

The BitMint money language is a means to alleviate both issues.

Using the BitMint money language, all transactions are centrally validated at the mint that issued the transacted digital coin. No backtracking. The cyber-war front is thus shrinking from going through all the participating banks to focusing on the security of the mint. As long as the mint's integrity is intact, so is its instant reconciliation process.

Using the BitMint alphabet, each digital coin is marked by a unique identity, which is associated with its owner. Stealing it will be pointless - a cryptographic lock keeps non-owners from spending the money.

The BitMint digital coin carries with it its full chain of custody, and thereby creating an accounting Tri-log: income books compared to expense records, and both compared to the chain of custody tallied in the BitMint coin. Mistakes are prevented, untoward money routing is exposed.



Cascade Coin is comprised of several Coins. In cascade coin, every fbit is a full coin.



In contrast to SWIFT, the cascade coin can be used in international financial trade. Traders can use a cascade coins to do business with less exchange rate influence, which is comprised of Euro and Dollar or other digital fiat currency plus any combination of commodities like gold and silver. The cascade coin will be most stable because of how it is structured.



It can express multi party contract. All the legal details in the contract will be expressed in the coin. The coin will be redeemed only if all the necessary terms are met. No need for accounting follow up.



An Automated Payment Solution to Replace Escrow Accounts

Mutually Mistrustful Buyer and Seller Use Tethered Money to benefit from the Mutual Security Otherwise Offered by Expensive and Cumbersome Escrow Services

The need: Majority of ad-hoc deals where buyer and seller stumble upon each other in cyberspace, is below the threshold that justifies the effort and the expense to secure a traditional escrow solution.

BitMint's ***Tethered Money*** technology offers an automated escrow services via the payment system that enjoys the credibility to redeem its digitized dollars against terms specified by the users. Terms that are written on the money.

If the seller is a fraudster, or does not deliver as promised, then the buyer's money will automatically return to the buyer's disposal after a pre-set time.

Like in a nominal escrow, the very fact that the money is not in the control of either party incentivizes both parties to resolve the matter, and suppresses the temptation to cheat.

Why digital money?

- ❑ The medium of digitized dollars allows the buyer and the seller to remain strangers to each other.
- ❑ The seller may choose a random ID against which the Mint will redeem the money to him/her.
- ❑ No need for any account data, no phone number, not even an email address, nor any other personal identification information, except to the extent that is mandated by the applicable law.



M2M payments, Micro-Payments, "Pay-Per-Use"

drives a paradigm shift in many industries

In the world of IoT with billions of connected devices, machines will receive services from other machines.

A successful micropayment solution needs to avoid transaction fees and ensure ease of business (contracting).

Both of these attributes are core benefits of BitMint technology.

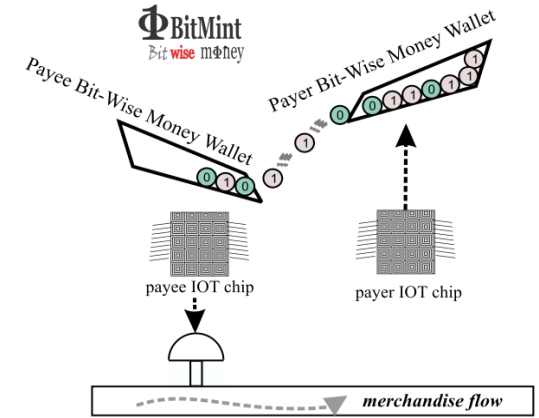
Another use case: Adopting pay-as-you-go for auto-pay per time when a machine is being actually operated (by a customer), while the machine manufacturer would be the owner of the machine...

Solving the conflict of manufacturers to deliver good quality and design machines or devices with long lifetime versus try to ensure that their goods do not last too long and raising the need for customers to buy a new machine or device.

(Cryptocurrencies does not seem to be a good solution for this scenario. IoT payments will soon require hundreds of thousands of payment transactions per day, most of which will be nano payments of less than a dollar.*

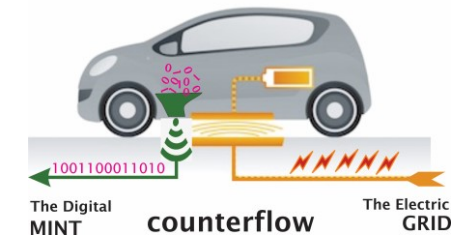
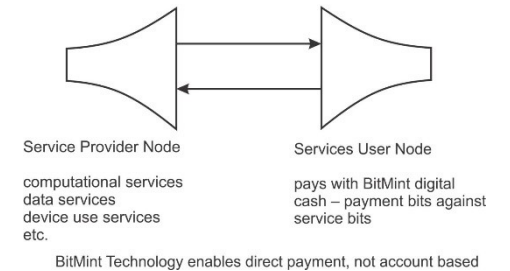
Frictionless Payment

Continuous Pay-as-You-Go!
Super-Simple, Super-Fast, Super-Secure!



Counterflow Mode: if merchandise stops flowing, money stops right away. If money stops – merchandise stops. No more account adjustment dialogues, no invoices, no late payment!

IOT real time pay for services





RockLock: Quantum Grade Material Authentication

Tamper Resistance, Safe Shipping

The need

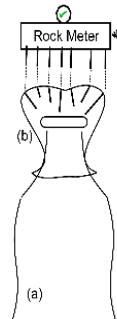
Any seal, or lock that is constructed out of a plan, an algorithm, a schedule, can be copied, faked, counterfeited.

To the extent that the seal protects something of great value (e.g. large sum of money, a life saving elaborate biochemical, expensive wine bottle, master keys for cryptographic services) - then the corresponding incentive to tamper, replace, defraud - is getting bigger.




It's a race between seal construction algorithm and the seal counterfeiting effort.



Virgin Seal (Rock) Technology



The solution

-  A Seal that is built not off a planned schematics, but off a stream of quantum grade randomness is counterfeit resistant.
-  The "Rock" has a flexible design, it may be based on as much randomness as desired, making it as secure as desired.
-  What makes the RockLock attractive is the quick and easy way to validate the authenticity of the inspected RockLock. It's momentary, using a simple device.

So now you can ship precious deliverables, pass them through many hands – the intended recipient will readily be assured of authenticity.

Purpose Driven Money

Tethered-Money

Cash (Untethered Money) is subject to waste, fraud, and abuse



BitMint (Tethered Money) is guided by its payer to its intended purpose



1001100100010010001110010010
Digital Coin

Tethered Money

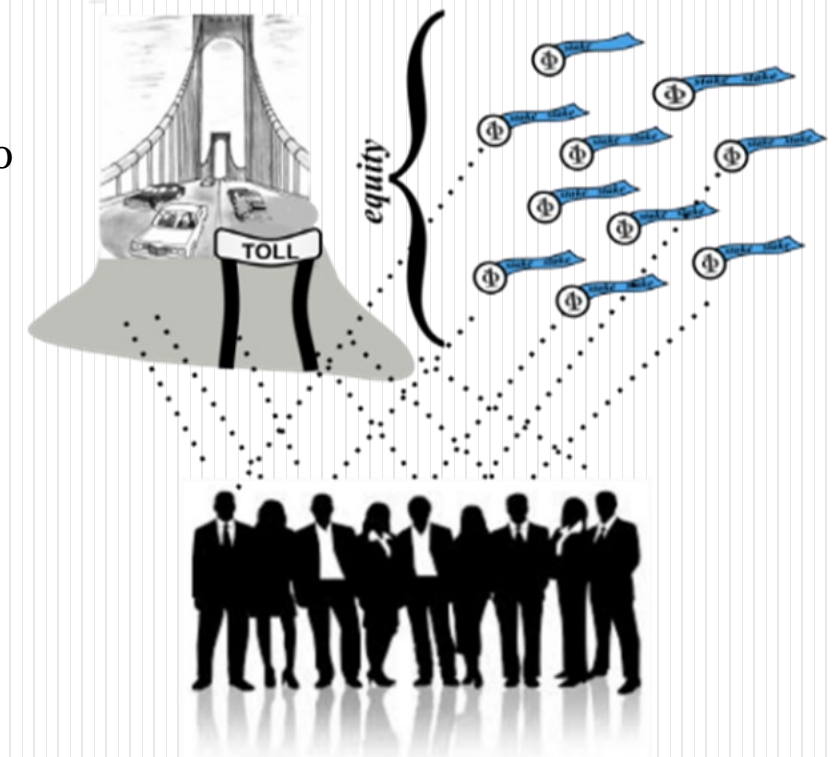


A digital coin may be cryptographically 'fused' with pre defined terms of payment, preventing misuse, holding off corruption, frustrating fraud.

Improving cities' infrastructure with public contribution

- A community wishes to raise money from the public to construct an expensive piece of infrastructure, for example, to build a toll bridge.
- The enterpriser may issue ownership stakes in the form of digital claim checks, and promise to distribute dividends from toll income.
- These bridge ownership Digital Claim Checks (= coins) will be freely traded, if so desired, only within the community.
- Alternatively, these coins may limit ownership to local residents, and assign voting rights to coin holders .
- With their votes, the coin holders will decide on business practice.
- These collaborative approaches are enabled with BitMint's Tethered Money solutions, which fuse terms of use to the coin itself.
- These coins are implemented with a strict chain of custody, and only local citizens can legally purchase such coins.
- Every year Quarter the coin holders vote on proposals to adjust the crossing toll for the bridge.
- Since the people who pay those tolls are members of the community that holds the stakes for this bridge, the question of a fair toll will be resolved within the community, giving the people a sense of control over their destiny.

BitMint Helps the Community Find Its Own Balance



The Owners are the Users

**High Toll - High Coin Value
High Dividends**

**BMTS designed to serve as a hub for public-private collaboration
in Community, Municipality and local Governments levels**

Smooth payment systems in time of crisis

BMTS has a vital role to play to maintain social order in time of crisis. Smart, secure and smooth payment systems are among the underpinnings of social tranquility, and we are the custodians of those systems

Our solutions are based on the following principles:

- In a time of crisis there has to be strong centralized controls and governance.
- Distribution of funds made available has to be frictionless and tightly monitored
- The lack of the two above points will promote
 - Interaction on the marketplace not being driven by consistent factors
 - Opportunistic behaviors to generate revenue
 - Fragmented supply chain, including not matching supply to needs
 - Entropic behaviors due to lack of governance
- Focus on small to medium sized business means the only opportunity to monetize during crisis.

BMTS will support local governments in managing supply and demand priorities.

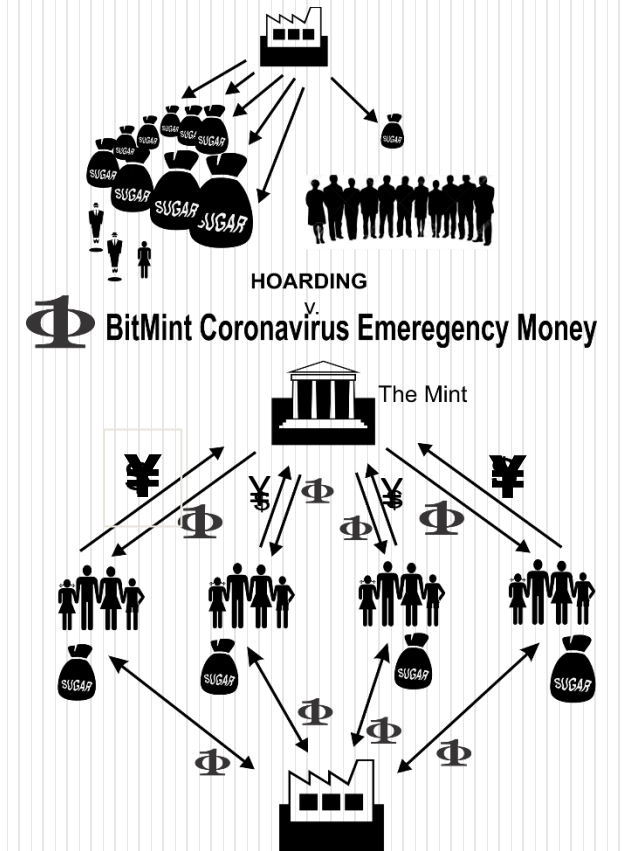
Value Proposition - Key Benefits:

Closed loop frictionless payment

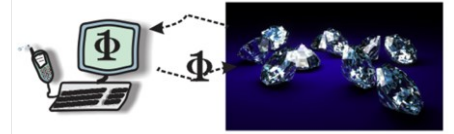
Puts control in the hands of the appropriate authority

Eliminates hoarding, black markets and price gouging

Enables SMEs to stay productive during crisis disruption



New Trading Capabilities



BitMint allows people to trade fiat currency, gold, gems, or any other valuables of choice by safekeeping these valuables with centered top-level physical security while transacting digitally convenient **IOU claim notes** for the same.

1st use-case: **Gold trade with digital claim checks**

Protect your wealth with gold digital claim checks backed by real gold stored at a storage of your will

A claim check for a certain amount of gold, X, is like a key to a readily available box where the actual gold is placed.

If you owe X ounce of gold, then, by passing the digital claim-checks to someone else, the new digital claim-check holder has the gold at their disposal. And the new holder, can pass the entire amount of gold, or any portion of it, to another trader.

As long as these traders trust that the gold is readily accessible and stored in a reliable place, the digital claim-check is a valid trading instrument.

These digital claim checks can have split value, and, can be tethered (can regulate their movement).



No risk of stealing

Easy trading P2P any portion of your gold

Relax your mind-set during these overwhelming-scary times

Convenience * Security * Opportunity

Digitally evidencing ownership and easy trading capabilities of Real Estate assets

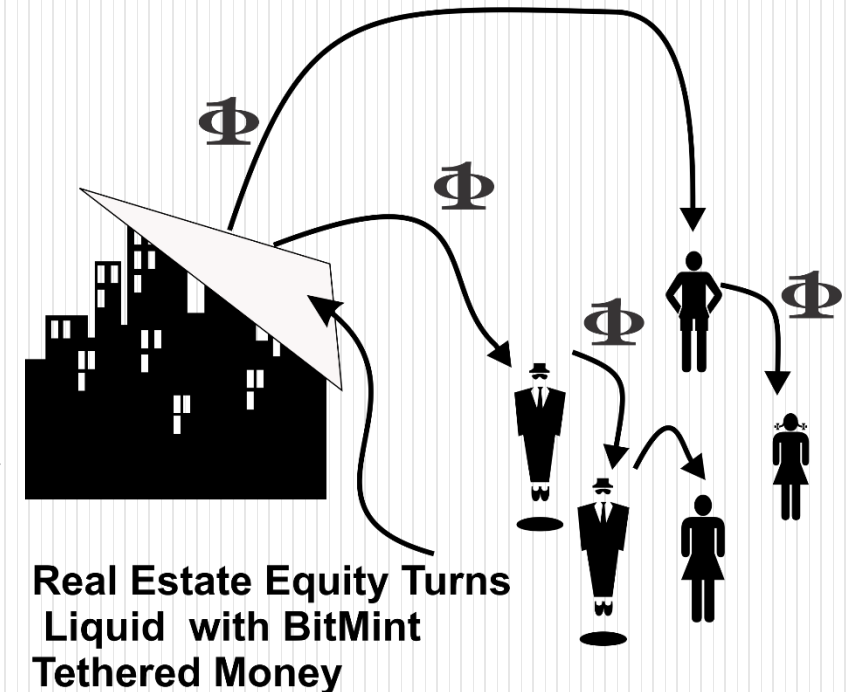
BitMint enables the process of digitally evidencing ownership of a real estate asset in a digital claim check form (let's call the "coins").

The coins can move in a frictionless mode from one to another, which opens the option to real estate merchantability among the stakeholders.

In other words, a building, for example, can be divided into small portions.

In that manner the owner of a real estate asset can raise money from the public by offering ownership stakes of the real estate.

These real-estate ownership digital claim checks will be freely traded.



Qou Phone

A Digital Promotion Management System Turns Your Customers to Your Distributors

Digitized Coupons, Gift cards, Reward cash, Loyalty points



**flying frictionless phone-to-phone
for the purpose of
New Customer Acquisition
and
Shaping Old Customers Behavior**

Offering the next-generation of digitized customer loyalty platform that is changing the way merchants, hotel chains, travel agencies, airlines and most important - brick-and-mortar stores, communicate with their customers.

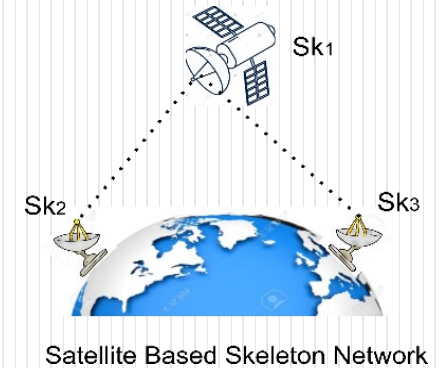
It's easy and intuitive platform both for merchants and customers.

The platform provides merchants with effective tools to raise profits and increase customer retention, enables data mining as well as rewards and personalized offers.

The smartphone App and Web-based applications enable customers full and easy control on their points/rewards/gift cards, that are stored on their devices, and could be easily split (no Internet required) and transfer to friends.

POST QUANTUM

SOFTWARE + TAMPER RESISTANT HARDWARE
ALL PATENTED



➔ **Network Penetration Prevention and springboard for quick recovery without compromising your organization**

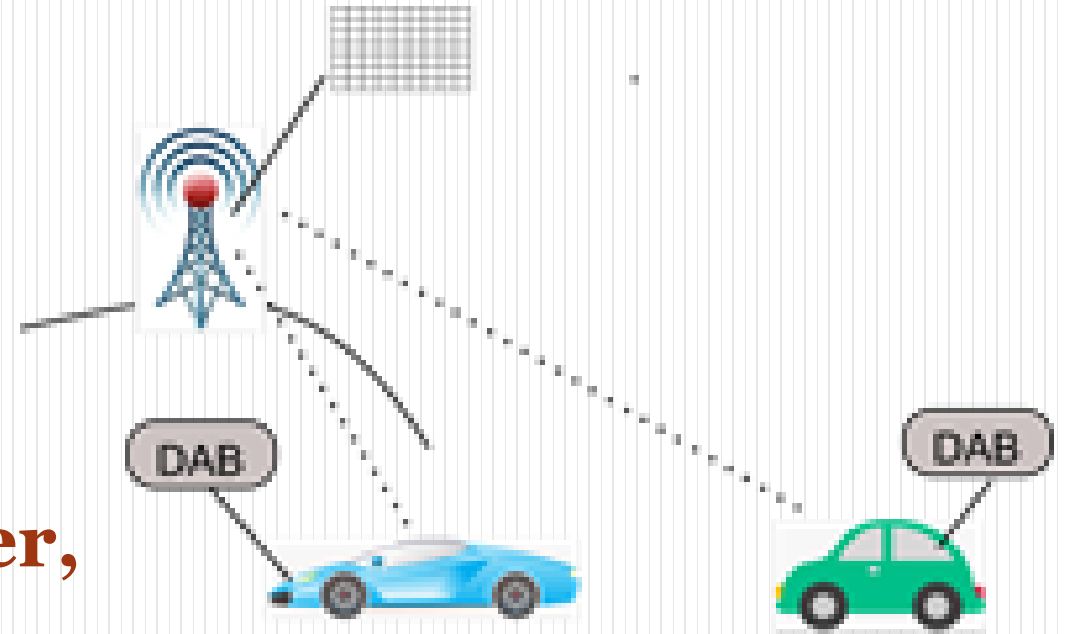
➔ **Seal Virginty Technology (SVT)**



insuring integrity of items exposed to untrusted or unknown handlers (e.g. shipping)



➔ **Preventing untrustworthy insider, nor a sophisticated attacker taking control on autonomous car**



*Automotive network security firewall and any other bit based solution are NOT effective!

'Nooance' - Making Your Breach Unproductive for Hackers



Von Clausewitz taught us that the most efficient way to win a war is not to kill your enemy, but rather to kill his will to come after you.

The solution:

The server stores a nuanced version of the user's credentials. The nuance may be so subtle that authentication will proceed as before, but sufficiently pronounced for the server to spot the distinction between what is stored in its database, and what the user submits for authentication.

When the user presents his or her credentials the authentication proceeds normally but the server observes the expected distinction between its stored data and the user submitted data.

Thief Uses Stolen Credentials

325-98-7546



store server



325-98-7546

The Server realizes that the submitted credentials are of the same shade as its own –

and is alerted to the breach!

BitMint adjusts its security to the threat and uses data-sourcing technology to catch identity thieves when they attempt to use the victim's personal data.



No hardware changes
No disruption to payment protocols
Added Software at the Server
and for the Client (the phone app)

What happens when server is being hacked?

Two things happen right away:

(1) the server raises the alarm -- we have been hacked?!

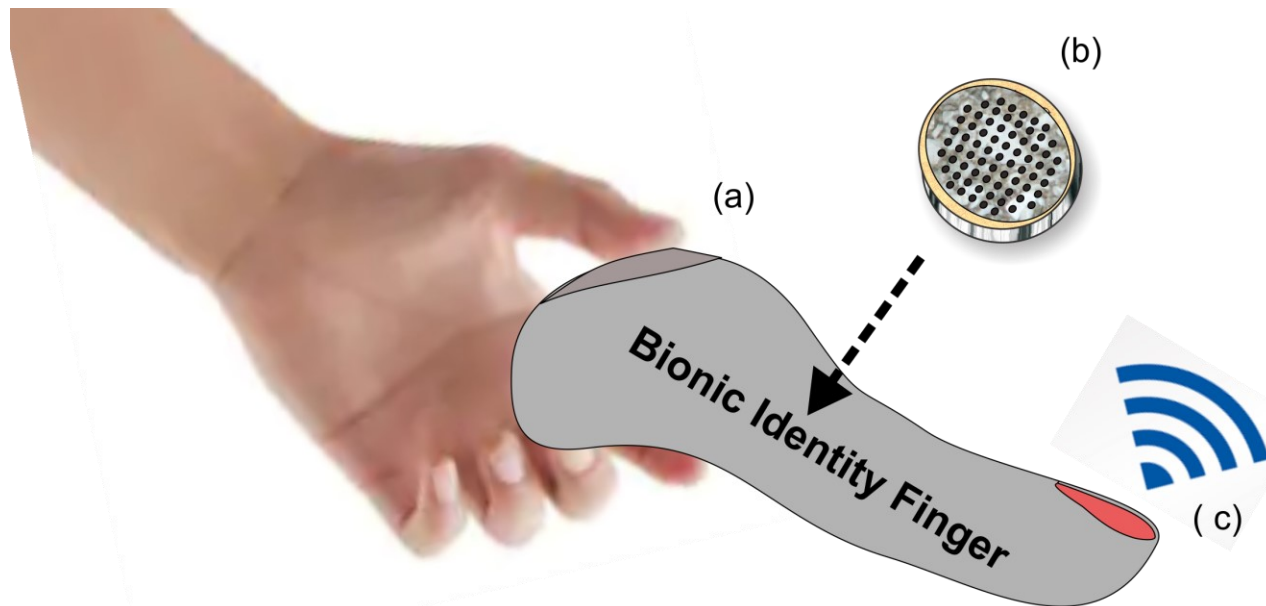
(2) the thief is not only rejected; he becomes an instant target of law enforcement.

The predator becomes the prey -- poetic justice!

Φ

Bionic Fingerprint

*Replace your thumb with a **Replaceable** bionic finger!*



It exploits the advantage of biometric data, which is originally analog not bit-wise, and as such of open-ended complexity, the key to its usefulness.

Document management

keeps everyone reading only what is intended to read,
while maintaining one single shared document

Based on Accessioe™ - Homomorphic Equivalence to allow processors to see in data everything they need for their purpose, and nothing else.

At any time, a new data processor may be added, and be given a tailored decryption key that would expose only the data needed for its purpose.

Low-trust readers interpret the ciphertext either as a partial plaintext, or as a fuzzy plaintext (sufficient for their required data analytics), while medium-trust readers decrypt the same ciphertext to a more detailed, or less fuzzy plaintext. High-trust readers are exposed to the unadulterated plaintext.



03

Business aspects

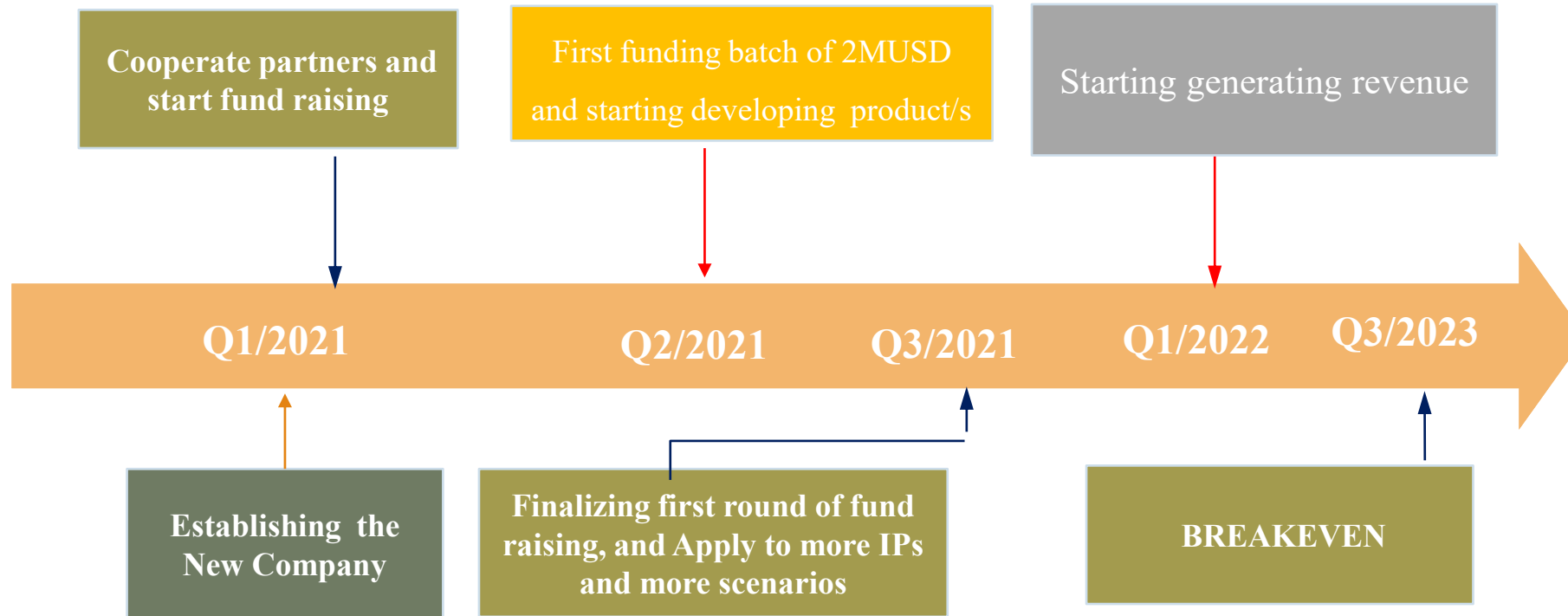
BitMint is promoting a suite of innovative products which are partly self-used and partly planned for use by others towards particular business objectives. The suite comprises cyber security products, digital money, and payment platform products, as well as data-to-conclusion engines, etc.

BitMint is working on establishing dedicated entities in collaboration with local strategic partners, for developing, implementing and commercializing products and services based on its technologies.

KEY MILESTONES

First round of Fund raising will be used for:

- *Business promotion*
- *Recruiting team*
- *First product/s development, design, coding and testing*
- *License fees per patent/s per quarter*
- *Promotion/sales activities*



REVENUE MODEL

BUSINESS MODEL: B2B2C

- ❑ Differentiated competition
- ❑ New market through IT advantages

- ❑ Satisfy customer needs
- ❑ Nurture customer habit
- ❑ Providing customers with a more user-friendly and reliable options

- ❑ Widen scope of products
- ❑ Save time & cost
- ❑ New customer acquisition

Create Merchants Value

Create Customers Value

Win-Win with Partners



REVENUE SOURCE



Payments Solutions are primarily offered on price per volume basis



Security Solutions are primarily offered per service fee (if operated by us), or per license fees (if operated by customer)

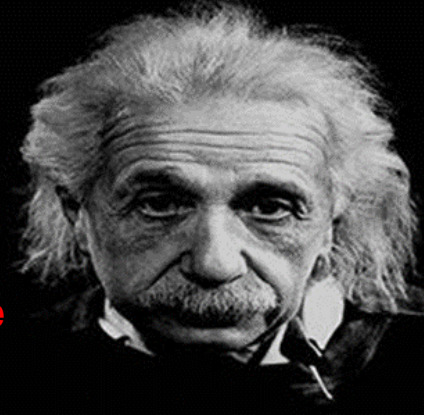


Data mining services, Loyalty points and coupons services, Advertising services and advisory services per monthly retainer on annual basis contracts



Turn-key projects and special problem solving and customized new products and development projects are offered per lump-sum payment and quarterly service fees for maintenance and upgrades

"I am neither clever nor especially gifted. I am only very, very curious."
-Albert Einstein



Curious partners are welcomed to join

THANK YOU



Amnon Samid
+972544200400
amnon@BitMint.com

Disclaimer



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