

DOMESTIC & OVERSEAS DIGITAL BASES WORLDWIDE-INDIA



Expansion of e-Rp and digital payment for
Indian nationals daily life.

GNA India Private Limited.
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PREFACE

CONFIRMATION OF BASIC IDEAS AND ASSUMPTIONS

INDIA'S AIM IN INTRODUCING "E-RUPEE"

- Since the inception of the Modi administration in 2014, the Indian government has been implementing various initiatives towards the digitalization of financial services. This is motivated by the recognition of the high social costs associated with cash payments. Specifically, the costs related to the production, circulation, and storage of cash, along with issues such as illicit hoarding, tax evasion, and counterfeit currency, have been highlighted. Furthermore, inefficiencies in administration and corruption have led to the inadequate distribution of cash benefits to the intended beneficiaries, particularly among the low-income population.
- In order to address these challenges, the government is seeking to promote the digitalization of financial services through two main aspects:
 - 1) Improving access to banking services for low-income individuals,
 - 2) Strengthening regulations on cash usage.

FURTHER MORE BACKGROUND OF DIGITAL PAYMENT

No.1)

- In August 2014, the government launched the PMJDY (Pradhan Mantri Jan Dhan Yojana), a campaign aimed at promoting the opening of special accounts with benefits such as free account maintenance fees and insurance coverage including life insurance. By introducing a new national ID, Aadhaar, which utilizes biometric authentication technology, the initiative enabled financial transactions for individuals who had difficulty opening bank accounts due to illiteracy or lack of a government-issued identification document. As a result, over 400 million accounts have been opened thus far.

FURTHER MORE BACKGROUND OF DIGITAL PAYMENT

No.2)

- Initially, criticisms emerged as the financial transactions were limited after the opening of accounts through PMJDY, which hindered the increase in financial intermediation and reduction of poverty despite the rise in account ownership rates. However, the shift from traditional cash subsidies to account transfers for low-income individuals led to increased financial transactions, reduction in administrative costs, and curbing of corruption. These developments provided commercial banks with increased opportunities for deposits and revenue, prompting various banks to actively engage in the campaign to open accounts.

FURTHER MORE BACKGROUND OF DIGITAL PAYMENT

No.3)

- Looking at the regulations on cash usage, in 2016, the mandatory presentation of PAN (Permanent Account Number) was enforced for the purchase of jewelry exceeding a certain amount. Additionally, in November of the same year, the abrupt demonetization of 500 and 1,000 rupee notes, which accounted for over 80% of the circulating cash, took place. While the delayed supply of new currency initially caused significant disruption in India's economy and society, it also acted as a catalyst for the expansion of mobile banking. Furthermore, the introduction of regulations in 2017 concerning cash transactions exceeding 300,000 rupees also contributed to the promotion of the digitalization of financial services. The restrictions imposed due to the COVID-19 pandemic further accelerated the digitalization of financial services through the expansion of online transactions. Despite a significant economic downturn in the mid-2020s due to strict lockdowns, the "Digital Payment Index" evaluating the situation of the digitalization of financial services has continued to expand both comprehensively and quantitatively.

REASONS FOR INTRODUCING THE NEW “E-RUPEE”

No.1)

In August 2021, the Indian government announced its intention to introduce a new electronic payment system, "e-Rupi," in the near future. The government plans to utilize the electronic payment system provided by NPCI (National Payments Corporation of India) to offer electronic coupons for social welfare services, among others, through QR codes and SMS (Short Message Service).

A notable feature compared to the traditional subsidy payments is that the receipt and use of e-Rupi do not require a bank account. Beneficiaries can receive goods or services by presenting the electronic coupons sent to their mobile phones, while the providers of these goods or services will receive payment from the government through financial institutions.

REASONS FOR INTRODUCING THE NEW “E-RUPEE”

No.2)

One reason for the government's transition from direct transfers to bank accounts to providing electronic coupons to mobile phones is the widespread use of mobile phones compared to bank accounts. While the Indian government has been promoting the "JAM Trinity," which links bank accounts (Jan Dhan Yojana), national IDs (Aadhaar), and mobile phones, there is still a certain demographic that possesses a national ID and a mobile phone but lacks a bank account. According to a World Bank survey, the proportion of the population aged 15 and above holding bank accounts increased from 53% in 2014 to 80% in 2017, primarily due to the opening of bank accounts for the lower-income group under the PMJDY. Although the ownership rate has continued to rise, it is still estimated that around 10% of the population does not possess a bank account.

On the other hand, in terms of mobile phones, while the smartphone penetration rate is about 70%, it is lower than the bank account ownership rate. However, the number of subscriptions for wireless mobile phones, including feature phones (non-smartphones, so-called "flip phones"), is about 1.2 billion, exceeding the population aged 15 and above (approximately 1 billion). This makes it feasible to provide coupons through e-Rupi via SMS to a wide range of people. Therefore, the government aims to introduce e-Rupi to provide swift and certain financial aid to those who have been struggling during the pandemic while suppressing the risk of infection spread. Moreover, it is believed that the introduction of electronic coupons aims to restrict spending on luxury items and gambling, thereby ensuring a minimum standard of living for low-income groups.

REASONS FOR INTRODUCING THE NEW “E-RUPEE”

No.3)

Finally, let's examine the relationship between CBDCs (Central Bank Digital Currencies) that have attracted attention in various countries and the e-Rupi. E-Rupi, which has limited usage and does not allow for transfer to others, does not fall under the category of CBDC, which shares similar functions with cash. In the future, there is a possibility that the government may expand the provision and usage of e-Rupi further, aligning with the continued digitalization of the economy and society. However, unless financial functions such as deposits, transfers, and borrowing are incorporated, it is unlikely that e-Rupi will serve as a substitute for existing currencies. This suggests that even as the use of e-Rupi expands, it remains crucial to continue efforts towards improving the existing financial infrastructure.

PROPOSAL

DIGITAL PAYMENT PLATFORM

“BHARAT SMART CHAIN”



EXPANSION OF DIGITAL PAYMENT FOR INDIAN NATIONALITY

- We believe that if the digital payment is more convenient and more reasonable for Indian nationality, the they use digital payment system more.

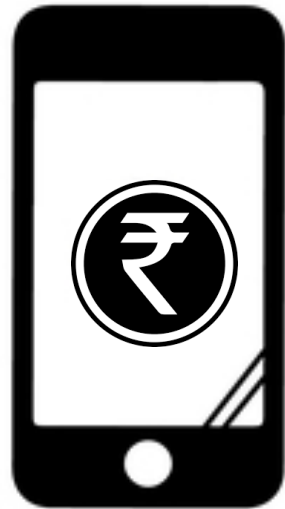


FOR EXAMPLE, IN THIS SITUATION

- ① Pay/receive salary
- ② Give pocket money
- ③ Watch a movie
- ④ Watching sports
- ⑤ Online shopping
- ⑥ Lunch and dinner
- ⑦ Real world shopping
- ⑧ Offering to god



WE CREATE “BHARAT SMART WALLET”



E-Rp



Bharat



QR payment

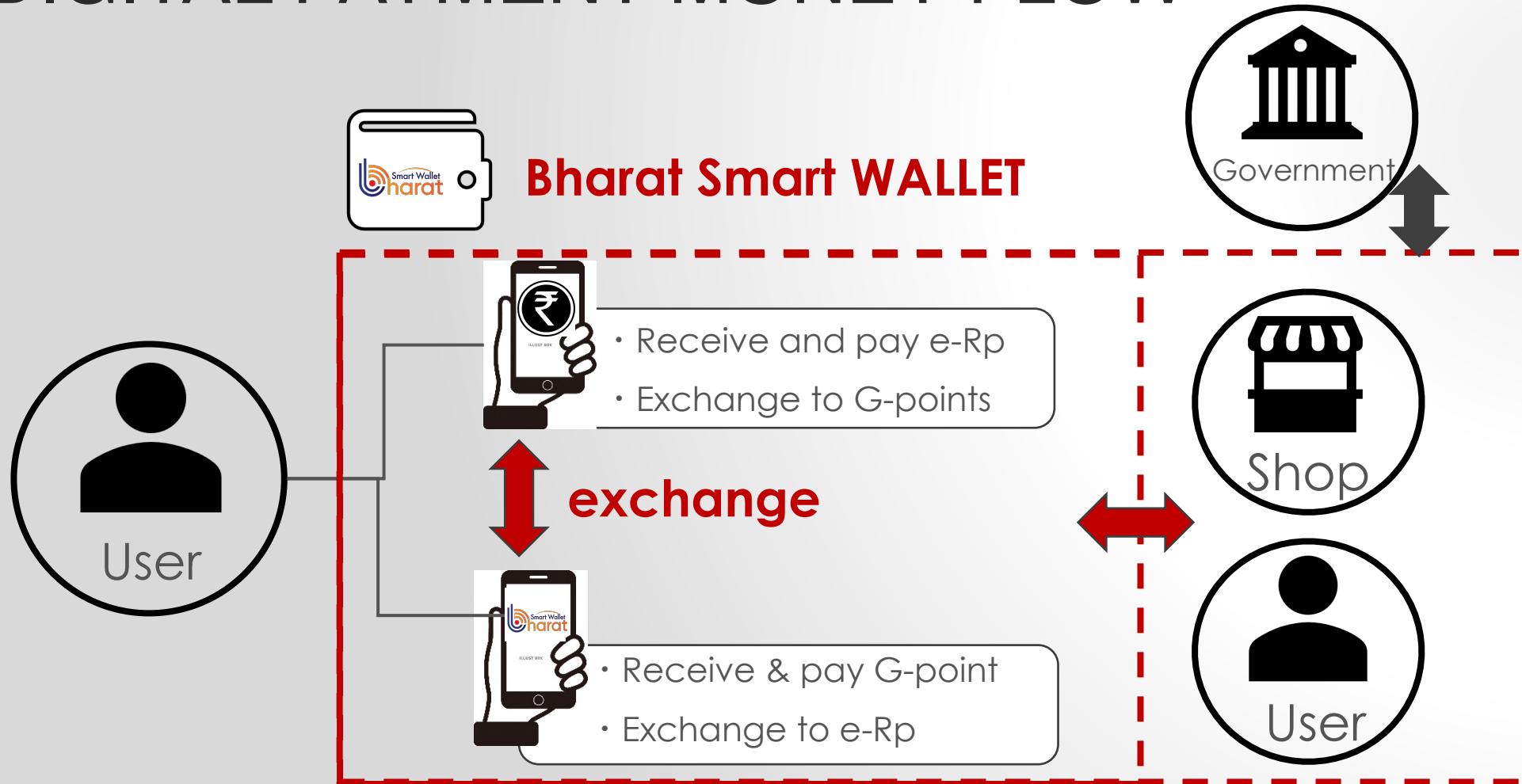
WHAT WE CAN DO WITH “BHARAT SMART WALLET”?



Bharat Smart WALLET

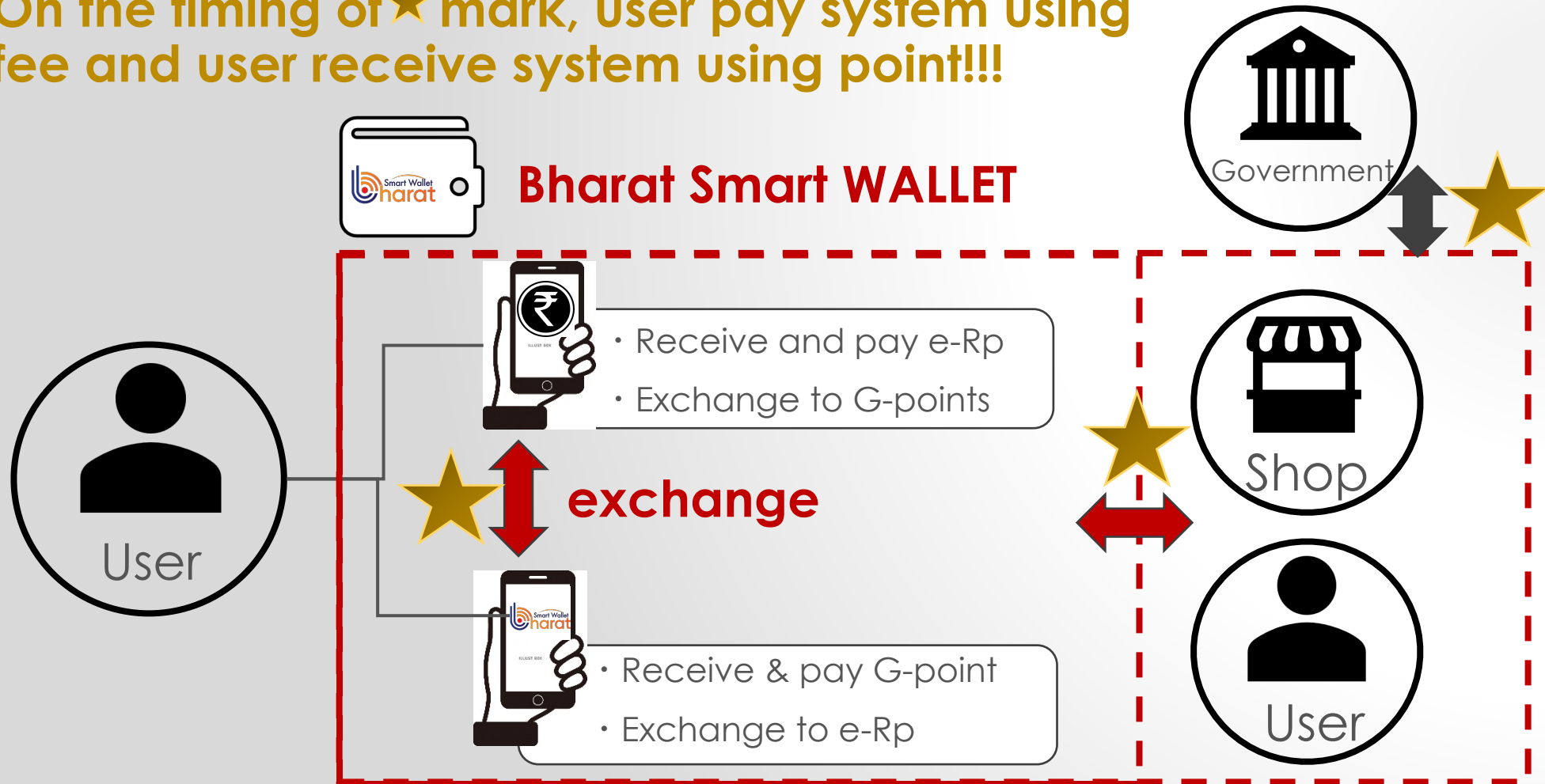
- Peg with e-Rp
- Exchange e-Rp \Leftrightarrow G-point
- Will be given G-points
- WALLET KYC connect to national ID, Aadhaar.

DIGITAL PAYMENT MONEY FLOW



SYSTEM USING FEE AND SYSTEM USING POINT

On the timing of ★ mark, user pay system using fee and user receive system using point!!!



Tokenization by Bharat Smart Chain, GNA and GNX as RWA (Real world assets) / Correlation diagram and specific purpose of use



Our smart chain is a secure system protected by financial license.

Transactions are performed using quantum cryptographic communication using the QKD system, which guarantees security based on quantum mechanics.

When making regular payments, quantum-encrypted token transactions require a TTP (Token trusted provider), and SmartChain implements all of these.

Phase 1



Comercial Bank



Central Bank



Digital Rupee (e₹) or eINR or E-Rupee



भारतीय रिज़र्व बैंक
RESERVE BANK OF INDIA



Users



Wallet

Phase 1



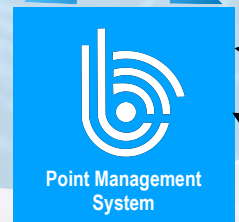
Bharat AirFi
Business with BSNL



BSNL users are
Covers 70% of India

*National telecommunications company

Phase 2



Point Management System

Phase 2

Company A

Company B

Company C

Affiliations

G points will be awarded as advertising expenses for partner companies. Therefore, the points are linked to the budget (cash assets) deposited to GNA by partner companies.



G Points can be exchanged for products and services from partner companies, as well as some of them.

Phase 3

Crypto Exchange

Users will be awarded G Points by using BharatAirFi. This G point is

① It can be used to pay for attractive products and services from our partners.

② Can be exchanged for GNA tokens. It can also be exchanged for other assets on virtual currency exchanges.

We believe that these incentives will lead to the promotion and continuation of the use of BharatAirFi.

GNA is the native token of Bharat Smart Chain

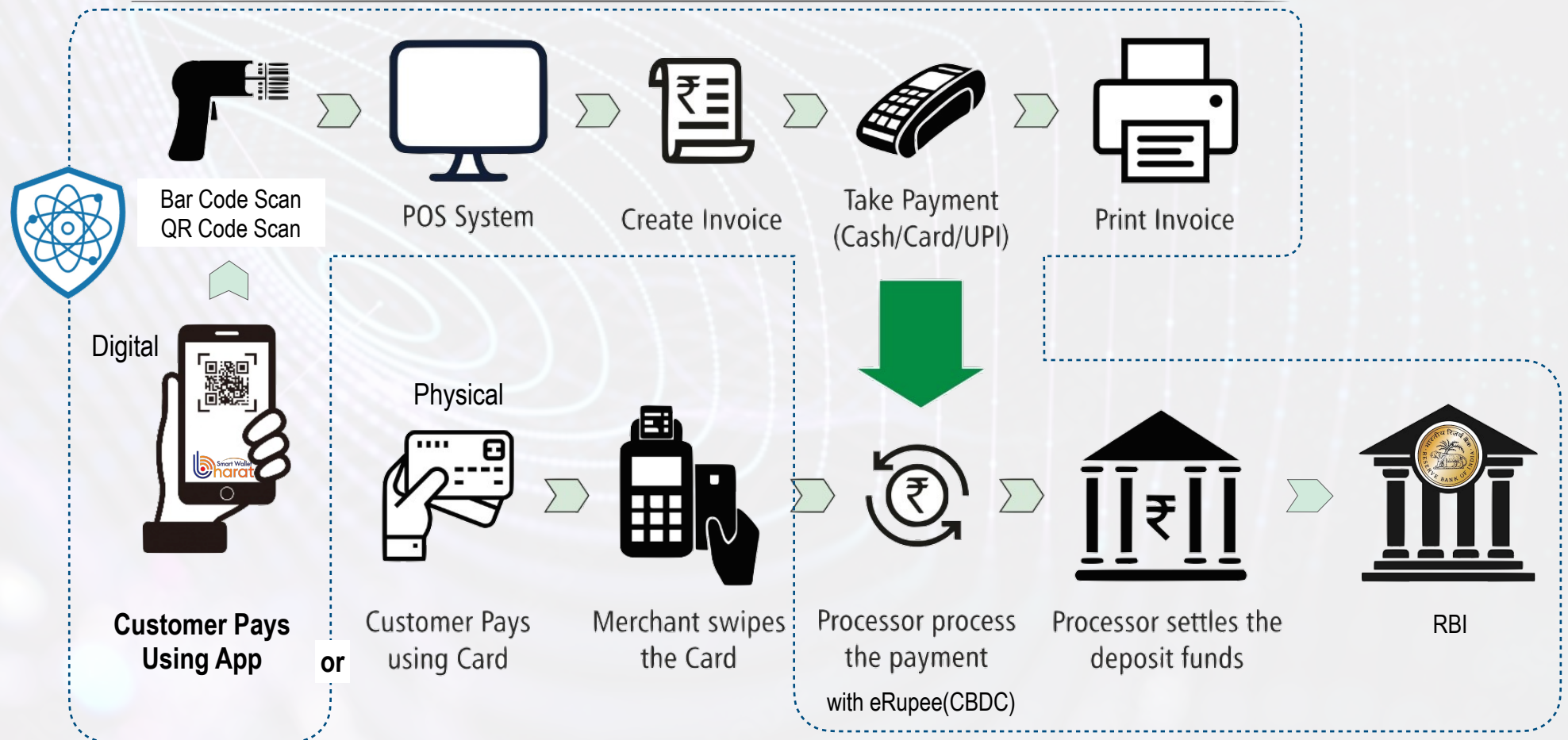
GNX is an ERC20 utility token

Our greatest strength is that we are already promoting the WiFi communications infrastructure business in collaboration with BSNL. Bharat SmartChain, GNA, and GNX will exist as RWA (Real world assets) that tokenize what already exists in the real economy.

KEY TECHNOLOGY

We will build BharatSmartChain, which incorporates highly secure quantum cryptography technology into the current payment system business flow.

TYPICAL PAYMENT PROCESS AT STORES



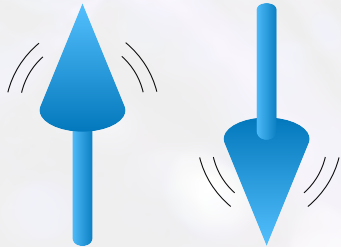
What is quantum?

We know that a quantum (elementary particle or photon) is a superposition of wave and particle states. Moreover, it is known that a unique feature of quantum particles is that their behavior changes (from waves to particles) as soon as they are observed. Quantum cryptography is a technology that utilizes these quantum properties such as duality, superposition, and quantum entanglement.

| | <Classical bit> | <Quantum bit> |
|--------------|--|---|
| Physical | High and low voltage | Quantum state (photon: superposition of wave state and particle state). A state where 0 and 1 overlap “ ” ① |
| Mathematical | Mathematically expressed as 0 (low) and 1 (high) | Mathematically expressed as $\alpha 0\rangle+\beta 1\rangle$ |

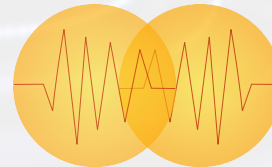
Qubits can be made from ion traps, photons, artificial or real atoms, or subatomic particles. It can be used as a quantum bit by taking advantage of the superposition characteristics shown below.

Spin



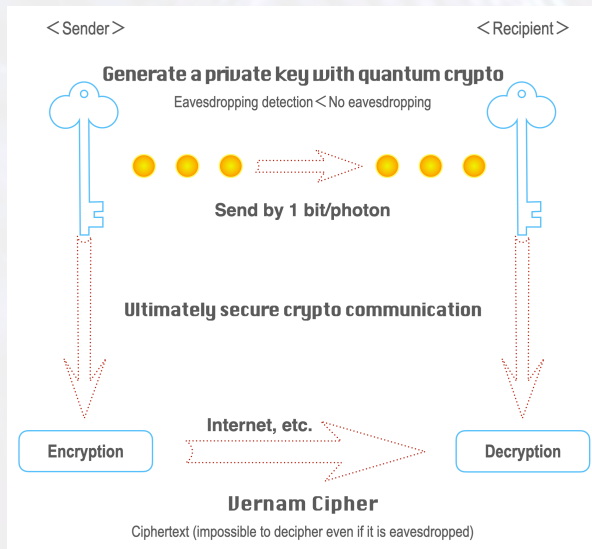
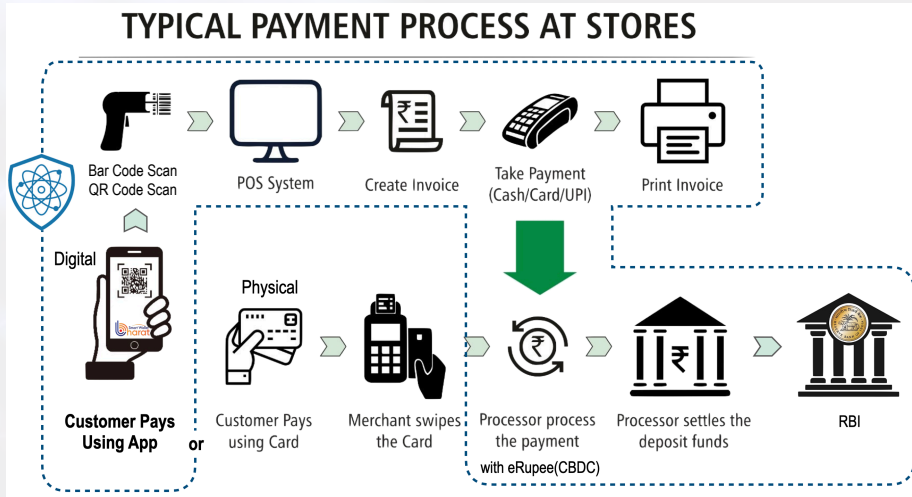
Muons and electrons are rotating. In quantum mechanics, this is called spin. Spin is angular momentum. Electrons, etc., have both upward and downward spins superimposed at the same time, and these are used as quantum bits.

Photon

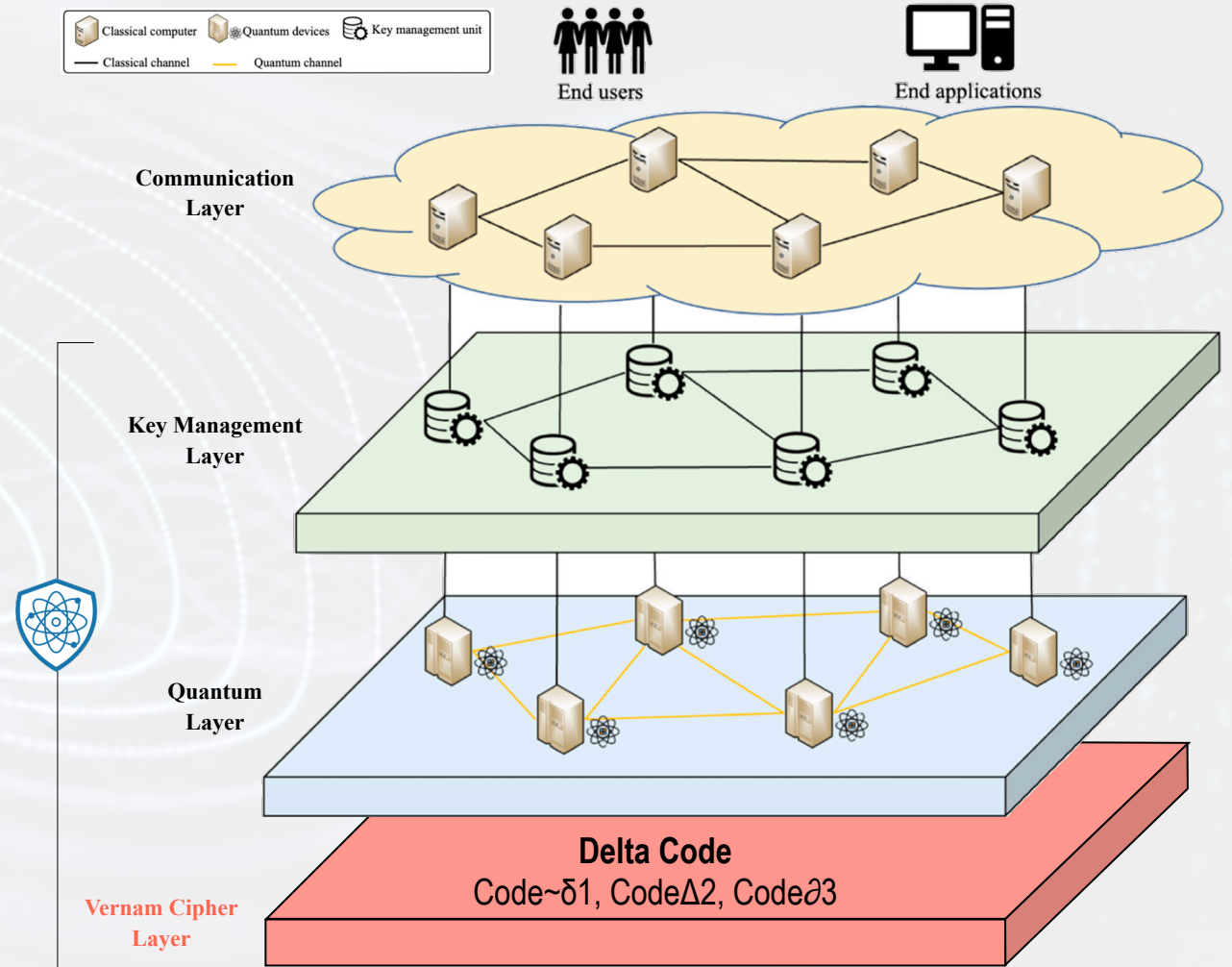


The smallest unit of light is the photon. Photons are a superposition of wave and particle states, and these are used as qubits.

The diagram on the left is a two-dimensional diagram of the payment flow, but the diagram on the right is a layered diagram combined with our quantum encryption technology.



<Framework of the quantum key distribution (QKD) network with Bharat Smart Chain.>



Reference materials: <https://www.mdpi.com/2076-3417/11/9/3767>

A safe and robust quantum cryptography smart chain can be constructed by combining the delta code encrypted with Vernum encryption and three private keys on the quantum layer.

Our code

As shown in the diagram above, our idea is to test quantum cryptography by mixing three delta codes with three private keys. Encrypt the Spiral Code and diffract the signal to the speed of light. The secret cryptographic effect is mixed with the three codes, and the algorithm uses the irregular formula program delta below.

Code $\sim\delta_1$, code Δ_2 , and code δ_3 are generated.

Each time a quantum state [photon] is measured, a different value is obtained. Hackers from outside can't enter because the definition changes every time they attack, and the code becomes distorted when they communicate.

If you are attacked at the same time, you will get 0 no matter how many times you measure. Also, no matter how many times we measure the quantum state, we get 0.

In this way, it behaves like a non-superposed 1 (like a classical bit) or a unitary bit.

Measure the following quantum state. Applying the quantum algorithm measurement definition, we get the following.

Quantum state measurement is 00

- Measurement value 01 status is
- Measurement value 00

The probability of obtaining the state 00 is xh_{01}^n , and it changes to the quantum state x_{2n} after measurement.

The probability of obtaining is 01^n , which changes to the quantum state after measurement.

Like the previous 00 and this 01,

"Although the vectors are different, the behavior when measured is eRuppee, and the signal diffraction is consistent with 01-00-01."

This means that it is impossible to analyze GNA-GNX transactions.

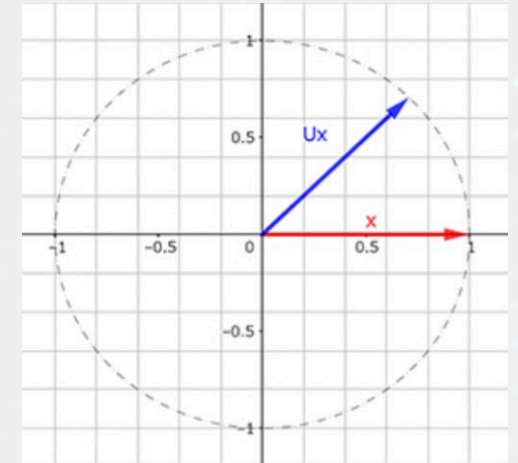
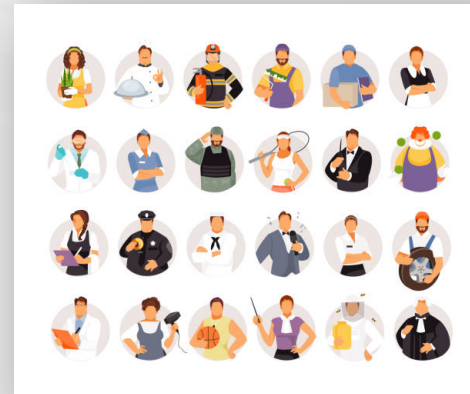


Figure.

In short, a quantum state [photon: a superposition of a wave state and a particle state] is instantaneously changed to 0 [in the form of a classical bit] by a hacker's attack [observed state], and the code you want to obtain [signal diffraction :01-00-01], so hacking the transaction will be forever impossible.

Domestic & overseas Digital bases worldwide-India



Domestic and overseas users will pay or exchange money via "Bharat Smart Wallet".



Fee & Point Amount will be huge impact number.

Bharat Smart WALLET



WHO

- To all Indian citizens
- First approach. Payment service for WiFi users.

WHAT

- Digital payment platform “Bharat Smart Chain”.
- “Bharat Smart Wallet”. A robust and secure digital wallet linked to Adahar.

HOW

See below.



WHAT WE NEED TO DO TO EXPAND BHARAT SMART WALLET?

- **Marketing Campaign:** Utilize advertisements and promotions to actively highlight the platform's advantages and added value to the target users.
- **Word-of-Mouth Marketing:** Utilize positive word-of-mouth and reviews from existing users and experts to appeal to the platform's reliability and value.
- **Social Media Promotion:** Utilize various social media platforms to actively raise awareness among the target users about the platform's existence and benefits.
- **Influencer Marketing:** Utilize influential figures and celebrities within the industry to widely promote the appeal of the platform.
- **User Engagement Campaign:** Strengthen relationships with existing users and encourage the participation of new users through contests, events, or incentive programs.
- **Educational Campaign:** Provide information about the platform's usage and benefits to help new users understand the platform's value.

TOKENOMICS



GNA Token

Native token of Bharat Smart Chain mainnet. It will become the base currency within the smart chain ecosystem. It is used to pay for gas required for transactions and various other payments within the ecosystem. The total number of issues is unlimited. The issuance conditions are backed by legal currencies such as e-rupees and USD, and collateral such as bonds. Can be exchanged with GNX.



GNX Token

A utility token to connect the Bharat Smart Chain with the outside world. It is an ERC20 standard token. Can be exchanged with GNA.

The total number of copies issued is 1 billion.

10% (100 million coins) Replacement for BharatAirFi subscribers.

10% (100 million coins) for the team

10% (100 million coins) for liquidity provision

10% (100 million coins) for Staking

10% (100 million coins) for public sale

After the public sale ends, all remaining GNX will be burned.

Etherscan source. <https://etherscan.io/token/0xd4a0e8962611792a85a9ff176194022659e7184f>

ROADMAP

