What Is SmartGem

SmartGem is consumer rewards program similar to existing loyalty reward program. Only SmartGem is different in a few ways.

1. Easily accessible by anyone, especially merchants
We view that reward program must not be limited to establish or big enterprise. We vision that it should be easily accessible to any merchants. Our plan is to provide the tools to merchants, big or small, with investment upfront (i.e POS system). All the merchant need to is to download a mobile app, complete a simple registration, obtain some Gems from any Smart Gem Members.

2. Reward with value
At the moment, all reward program live in silos. It cannot be exchange across program or exchange for monetary asset.

We leverage the latest blockchain technology that power Bitcoin to store the reward token. The advantage to this is that the operator do not have any control on consumer or merchants token. Everything is P2P. Consumer and merchant have full ownership of the token as long they secure their password and private keys. The token cannot be duplicated, generate or confiscated. Everything is autonomously control by the SmartGem network.

By doing this, in the new future we are plan and able to "float" SmartGem token in public exchange so it can be exchange with other cryptocurrencies or any monetary asset.

The SmartGem Team

The SmartGem team is the operator of the reward management system. They utilize the existing Bitcoin code and re-brand it to SmartGem. Once the chain goes public, they have no control on the Smart Gem digital token.

The function of the team will be primarily focus on merchant development and support for reward program. The team will use this system to reach and boost merchant sales and customer experience.

Road-map 2018

1 Jan -3 April - Private sale & pre-sale.

4 April - Launching SmartGem & E-Wallet

5 May - Available in Exchange
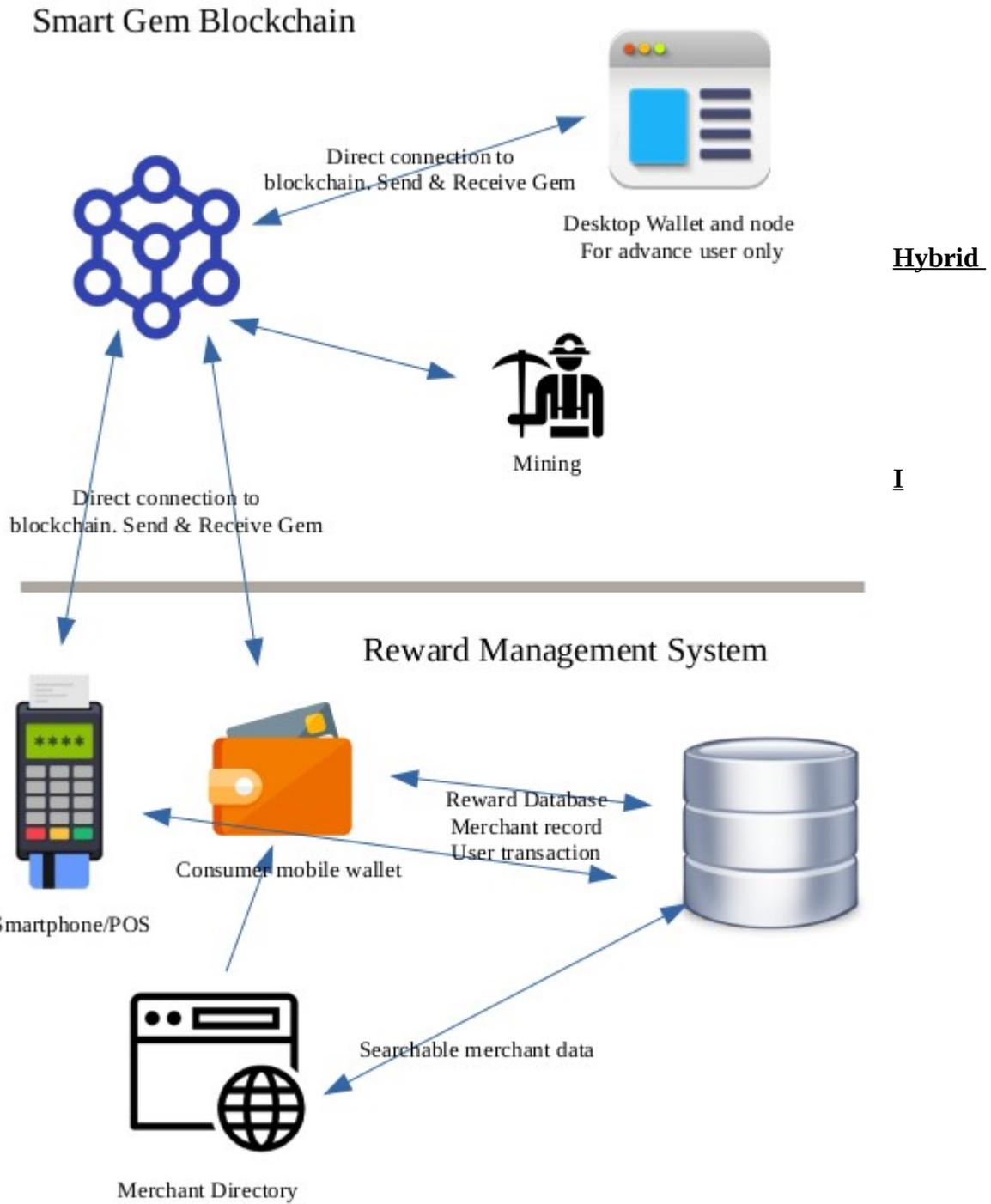
6 June - e-Wallet Apple Store release.

4 July – Referral system available

8 August – Pilot user for with 21 Merchant.

11 Nov – Public mining

3 Dec – Listing in Coin Market Cap

Infrastructure Overview

Smart Gem Blockchain

Direct connection to blockchain. Send & Receive Gem

Desktop Wallet and node
For advance user only

Hybrid

Mining

I

Direct connection to blockchain. Send & Receive Gem

Reward Management System

Reward Database
Merchant record
User transaction

Consumer mobile wallet

Smartphone/POS

Searchable merchant data

Merchant Directory

SmartGem will be built using hybrid method, combining existing database system and blockchain system. The actual SmartGem token will be running fully on the blockchain, while the reward management system will on a conventional client server database setup.

The reason we choose this approach because we need the flexibility of a centralize management to manage the SmartGem reward system such as merchants directory such as outlet details, location and photos, location searches and recommendations and other various marketing tools,

At the same time we value the members reward tokens as valuable asset that can be exchange for other service and products, or exchangeable for other digital token. The actual SmartGem tokens will sit on a public blockchain and will be trade-able on the public exchanges.

Blockchain Structure

SmartGem Blockchain foundation is base on a previous Bitcoin blockchain with some modification to its design. The reason clone the Bitcoin Blockchain because of its proven infrastructure and widely available resources, supported which is useful for future development.

The specification are

Blockchain : Proof of work
Hash Algorithm : SHA256
Max Coin : 2.1 Billion coins
Pre-Mine : 1.365 Billion coins.
Mine-able coins : 735 Million
Block Time : 60 seconds
Halving : Every 10 years
Block size : 2MB
Mining Fees : Min 0.0001
Decimal Place : 8 dec on core client, 4 on App Wallet.

The SmartGem blockchain source code is publicly available and can be download at the Github location below.
Github : https://github.com/gemchain/smartgem

Token Characteristic

Below are the SmartGem token characteristic. It shares similar to Bitcoin or other existing cryptocurrency token

1. Decentralize. It has network independence where no central authority that control the tokens.
2. Transparent. Transaction can be view on-line through block explorer
3. Fast. Transaction can be transmit from A to B in few seconds
4. Non-refundable. Once you send to someone you cannot get it back.
5. Private. User have full control of its private key.

The SmartGem rewards system do not collect any information about the SmartGem token private keys. The operator have no knowledge of its keys or how it was generated. Everything is mathematically generated, each address, transaction require to go through mathematical equation to get generated or broadcast. Losses of email, password or key, your token is not recoverable.

Reward Management System

The reward system will be an application that handle user reward system and it will be manage by the SmartGem team.

The blockchain is independent by itself and do not rely on the reward system. In situation where the reward system cease to function, the blockchain is still operation and the code is publicly available.

The Reward Management System consist of

1. Consumer smart phone wallet on Android and iOS
2. Merchant POS wallet tailor for merchant purpose
3. Merchant information directory
4. Marketing tools to help merchant by leveraging consumer information

Smart phone Wallet

This will be the recommended method of sending or receiving SmartGem. It will be available on Android and iOS. The wallet consist of 2 parts :

Blockchain wallet : The actual wallet that store your coin on the blockchain. The SmartGem team have no control of this.

Merchant Directory : This will be an information service where we will feed information about promotion or nearest SmartGem merchant.

Desktop Wallet

The desktop wallet and client for advance user. We do not recommend this wallet because of its bare basic function. This will be by advance user or miners.

Smart Phone POS (Merchant)

A special POS will be available for the merchant. It will be available on Android and iOS. This wallet is different for the consumer wallets because it is tailored to assist merchant such as

1. A POS system that do not hold any information of the tokens or wallet so this reduce the risk if the phone get stolen and this can be safely use on by staff

2. The system will capture transaction but only release the token to the consumer on the merchant consent, e.g end of business day disbursement.

To prevent merchant for not disbursing tokens, merchant payout statistic will be monitored by the merchant directory. Consumers will be notified via the apps in case the merchant they are visiting have a reputation to disburse on time, late or not reliable.

3. Due to the mobile nature, this wallet can be use outdoors, exhibition, event or wherever as long there is an Internet connections.

Mining SmartGem

We encourage you to mine SmartGem token to support our network. At the moment mining can be done using normal CPU machine. At the moment we will not provide any pool services. Only solo mining at the moment.

Rewards : For supporting the network and solving blocks on the network, miners will be rewarded with 50 Gems (at the moment). This value will half every 10 years for the next 100 years.

The rewards are the same token use for consumer and merchants. By mining, you can exchange or trade with merchant or on the public exchange.

Merchant Directory

The merchant directory will be a collection of registered merchant. This directory will benefit the merchant in few ways

1. A directory of merchant shop, outlet on-line or off-line
2. Description of merchant information and location
3. Photos of merchant shops and its business
4. Search-able directory via Google
5. Sharable on social media
6. Rating system to monitor merchant token disbursement statistic.