Milli Stone of Jordan (msoj)

A currency for Diablo 2 built to reward diablo clone spawning streamers

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Abstract

The game Diablo 2: Resurrected (D2R) is an online action role playing game with a vibrant user driven economy. However, it does not necessarily offer a good liquid currency to facilitate trading within the game. There is gold in the game, but it is generally so easily obtained that is holds little to no value amongst the user base. Thus, most users tend to use runes as a form of currency.

Unfortunately, valuing runes vs each other is not a straight forward task. In fact it is so inconvenient to use runes as currency that a significant portion of the trading economy has resorted to a website controlled digital currency called forum gold [1]. On d2CharsiFood.com I wrote some in-depth mathematical models for calculating a "pgem equivalent" for each rune [2][3] in an attempt to solve this problem.

This paper proposes a currency scheme leveraging the utxo and blockchain backbone behind Bitcoin.[4] This allows everything that happens with the currency to be easily verified by any 3rd party, and provides a reliable means of long-term data integrity.

However, rather than relying on decentralized proof-of-work to mint new coins, msoj is instead minted by streamers once they submit a "Proof-of-SoJ". Additionally, Bitcoin transactions are integrated in to the verification to provide a means of users incentivizing Diablo 2 content creators for hosting diablo clone spawns.

By definition: 1 Stone of Jordan = 1000 msoj

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The Problem

There is clearly a demand for currency in the Diablo 2 trading community, as is demonstrated by the success of forum gold. It is assumed that the reader understands why runes are cumbersome as an in-game currency. Forum gold, however, lacks several features which may be desirable in a Diablo 2 currency.

For one, it is the website's business model to perpetually inflate the currency by selling it for profit. As a user of this currency this imposes a long-term inflation effect which is in no way tied to the actual amount of items in the game.

Another desirable feature would be some way to separate how much user's have on Ladder vs Non-Ladder.

Milli Stone of Jordan

Milli Stone of Jordan, or msoj for short, is a currency on d2CharsiFood.com. Users can include it as part of their bids on auctions, in addition to runes or perfect gems.

Every user has four unique msoj balances, one for each region:

- Hardcore Ladder
- Softcore Ladder
- Hardcore Non-Ladder
- Softcore Non-Ladder

Issuance of msoj

New msoj is minted by Partner Creators when a user turns in an actual in-game Stone of Jordan.

Each Stone of Jordan will mint 1000 brand new msoj for that user.

However, that newly-minted msoj will not be spendable by the user until that Partner Creator has hosted a successful diablo clone walk.

Benefits of msoj

The "Proof-of-Stone of Jordan" nature of msoj provides several features:

- A fair means of issuing new currency, dependent on actual in-game items
- A fresh start every new Ladder season. Everyone starts back at 0 until the first Diablo Clone walk.
- Incentive for more Diablo Clone walks to happen and be live-streamed
- Incentive to donate your Stone of Jordans to walks

Partner Creators

For this currency to work, d2CharsiFood.com must partner with Diablo 2 content creators who are actively hosting diablo clone walks. Partners will be manually screened, and once approved they will have the ability to mint up to 150 x 1000 unconfirmed msoj, based on the assumption that diablo takes approximate 75-125 SoJs to spawn.

Incentive Structure

Diablo Clone Walk Notifications – The Problem

There have been a few attempts at providing notifications for when diablo clone is about to spawn. These are usually powered by community-driven reports of diablo progress.

In practice, these are not often reliable due to trolls entering wrong information, or the game itself providing inaccurate diablo spawn messages.

Diablo Clone Walk notifications – The Solution

Thus, one way to provide always-reliable notifications of when diablo clone is about to spawn is to let the people spawning him send the notifications!

Partner Creators will be required to provide 2 hour notification of planned Diablo clone walks. The time frame 2 hours is based on an attempt to balance providing enough time for Diablo players to hop online, and being considerate and reasonable with the Partner Creator's time.

Anyone who has signed up for notifications will be sent an email when the Partner Creator triggers the notification.

Monetization

There are two ways to sign up for notifications:

- Turn in a Stone of Jordan to that Partner Creator
- Pay 10,000 satoshis (0.00010000 Bitcoin, about $3.00 with Bitcoin at around $30k).

Users sign up for specific Partner Creator notifications. Every purchase goes in to a pot for that Partner Creator. When that Partner Creator provides proof of a successful Diablo clone walk then 70% of the pot gets paid to that Partner Creator and d2CharsiFood.com receives the remaining 30%.

Proof of Diablo Clone Walk

Partner Creators are required to submit two things as proof of a successful Diablo clone walk:

- The exact number of Stones of Jordans sold
- A url to a permanent version of their stream (Youtube, Twitch Video On Demand, etc)

Partner Creators cannot submit a proof of diablo clone walk until they have minted at least 125 x 1000 msoj.

The actual proof of these values will have to be manually verified.

Once Partner Creators provide a proof of a successful diablo clone walk:

- Previously minted msoj will be confirmed and is now eligible to be spent by the user. Only up to the exact number of Stone of Jordans sold
- The proceeds from notification sales are dispersed
- The amount of new msoj that the Partner Creator can mint is increased by the exact number of Stones of Jordan sold

Verifying Diablo Clone Walks

Verifying Diablo Clone walks as they happen is a manageable task.

However, verifying all past walks will quickly become an infeasible task for any one person to do.

Thus, every Proof of Diablo Clone walk will require the Partner Creator to provide a new Bitcoin receive address. Funds will be dispersed to that receive address, and both that receive address and the Bitcoin transaction id containing the payment will be saved in the Proof of Diablo Clone walk.

This provides a way of ensuring that some Bitcoin actually moved as part of a Diablo clone walk, without any manual verification. Since we can assume that no one is passing out real Bitcoin for free, then this serves as some assurance that this Diablo Clone walk was manually verified by someone at some point in time.

Using Blockchain for Transparency

Blockchain provides a convenient means for anyone to easily audit the entire transaction history.

All msoj transaction history will forever be publicly visible on d2CharsiFood.com. The goal is to build a public API of the transaction history data to allow external developers to prove the integrity of the currency themselves.

Including the permanent URL of a Diablo Clone walk stream in the block allows the amount of SoJs sold to be independently verified. Likewise, including the payment address and txid for the funds dispersed from each Diablo Clone walk allows automatic verification rather than manual verification.

Roles

There are three different types of users in msoj:

- Super User
- Partner Creators
- Regular Users

Super User

A super user is a representative of d2CharsiFood.com.

Only super users have the power to:

- Verify proofs of Diablo Clone walks

Partner Creators

A Partner Creator is a Diablo 2 content creator.

Only Partner Creators have the power to:

- Mint new msoj

Regular Users

Regular users is anyone else using d2CharsiFood.com.

Regular users can only send msoj that they have previously received, either from minting new msoj with a Partner Creator, or receiving msoj from another user.

Anatomy of a Block

A new block is issued every minute. Users cannot spend msoj they have received from another user until it has been confirmed in a block.

A block will contain:

- A list of all pending transactions, which are confirmed by this block
- Any Proof-of-Diablo objects which have been reviewed and approved
- The proof-of-work hash from the previous block
- A nonce
- A proof-of-work hash of the above data

A Proof-of-Diablo object will contain:

- Partner Creator name
- Partner Creator's Bitcoin receive address
- Bitcoin txid showing funds paid to Partner Creator's address
- Exact number of SoJs sold
- Permanent URL to recording of selling all the SoJs
- Verifying Super User
- Region (HC/SC, L/NL)

A Transaction object will contain:

- List of inputs (previous transactions used to fund this transaction)
- Receiver
- Value (amount of msoj to send to the receiver)
- Region (HC/SC, L/NL)

References

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