

# Goosie Rules

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*Money for Mankind*

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## Overview

When integrated into any crypto wallet the Goosie smart contract enables men and women to receive 50% more crypto for their money. So I have \$1,000 to spend on crypto and I end up with \$1,500 worth of crypto in my wallet. This drives growth and cashflow for exchanges and wallets where Goosie is implemented.

## Money for Mankind

Goosie is money as it should be:

- issued not by government but by the people who use it
- backed by real assets not by debt
- automated by a smart contract not by fallible humans
- run as a private club with no centralised company in control.

## Open Source

As an open source protocol Goosie allows you to self-loan based on the crypto assets you deposit.

The loans are made in the Goosie coin. Goosie are pegged to gold. When you want to release your crypto you simply repay the same value of Goosie that you took out for your loan.

It can be implemented into existing crypto solutions such as wallets and exchanges.

Unlike other lenders you:

- pay no interest
- repay the loan at any time
- stay in control of your assets at all times
- never take a loss by having your assets sold if their value falls below a given threshold (a margin call).

## How it Works

Men and women deposit an approved coin into the smart contract. The smart contract automatically mints goosie to 54% of the value of the coin. 50% of goosie are sent to the goosie blockchain and appear in the user's wallet as money to spend. 4% are sent to the goosie blockchain as system compensation. The man or woman creating the liquidity pay the compensation when the collateral is released.

Goosie are minted at the assumed peg of 1000 goosie for 1 ounce of gold. Collateral is released by burning the same gold *value* as goosie minted.

To release collateral the smart contract checks the current market value of goosie to determine how many are required. E.g. if \$100 worth of goosie was originally minted and goosie are currently trading at 960 goosie per ounce of gold, then the user needs to burn  $\$100/0.96 = \$104$  worth of goosie to release their collateral.

## Technical Details

### Overview

Each man and woman using the protocol has a smart contract for each coin held as collateral (e.g. DOGE, BTC). They all function in the same way except they have different price oracles for the coin they represent. Each also has a price oracle for the current average value of goosie. All prices are likely to be denominated in USD as this is the most common currency for price data:

Price of collateral: USD

Price of Goosie: USD

Price of Gold: USD.

It may be that a single smart contract can handle multiple coins as collateral.

Collateral is released once the same *value* of goosie is burnt as has been minted against the deposit.

The protocol can be integrated with existing wallets such as Exodus, Binance, Bitpay etc.

The integration includes a wallet for goosie coins themselves.

All private keys are recoverable via a seed phrase using [BIP](#) and IPFS (Inter Planetary File Sharing) as per most non-custodial wallets.

### Functions of the smart contract

The goosie smart contract performs a number of functions:

- Mint goosie at 54% of the current value of the coin collateral deposited;
- Send goosie minted to the goosie blockchain;
- Release collateral by burning the equivalent value of goosie as minted against it.

In order to achieve this:

- To mint goosie the smart contract calls on the current USD price of collateral deposited and of gold.
- To unlock collateral the smart contract calls upon the current USD value of goosie and of gold.

### Records

The smart contract records the following for each deposit:

- Amount of coin e.g. 25 XRP;
- Weighted average price in gold (WAP) of all deposits of a coin, e.g. XRP;

## Operation

### Deposit/mint goosie

On deposit the contract performs the following operation:

$$\begin{aligned} \text{Number of goosie minted} &= \text{Amount of coin deposit} * (\text{current coin price in USD})/\text{price of gold in USD} \\ &\times 1000 * 0.54 \end{aligned}$$

Goosie are sent to the goosie blockchain:

50% to the man or woman performing the self-mint;

4% to the goosie addresses for system compensation.

The contract updates its records:

$$\text{New coin balance} = \text{previous balance} + \text{current deposit}$$

$$\text{New WAP} = ((\text{previous WAP} * \text{previous balance}) + (\text{current price} * \text{current deposit volume})) / \text{new balance}$$

For example:

Deposit Example		WAP * vol (oz gold)
Current WAP (oz gold)	0.004	
Current volume	6	0.024
<b>New deposit</b>		
Price (oz gold)	0.002	
volume	5	0.01
New WAP		0.003090909

A user has 6 coins in their smart contract with a WAP of 0.004 ounces of gold.

They deposit 5 new coins with a current value of .002 ounces of gold each.

The number of new goosie minted is:

$$\begin{aligned} \text{Number of goosie minted} &= \text{Amount of new coin deposited} * (\text{current coin price in USD}/\text{current price of gold in USD}) * 0.54 * 1000 \\ &= 0.002 * 0.004 * 0.54 * 1000 \\ &= 0.01296 \end{aligned}$$

In USD the current price of gold is \$1800/ounce.

In USD the value of the new coins is \$3.60 each

Therefore the number of new goosie minted is:

$$5 * (\$3.6/\$1800) * 0.54 * 1000 = 5.4$$

The contract updates the coin balance:

$$\text{New coin balance} = \text{previous balance} + \text{current deposit}$$

in other words:

$$6 + 5 = 11$$

The contract updates the WAP:

$$\text{New WAP} = ((\text{previous WAP} * \text{previous balance}) + (\text{current price} * \text{current deposit volume})) / \text{new balance}$$

in other words:

$$((0.004 * 6) + (0.002 * 5)) / 11 = 0.003090909$$

### **Withdrawal/burn goosie:**

On a request for withdrawal the smart contract notifies the man or woman the number of goosie required to be burnt (potentially this part can be achieved by the wallet/app itself rather than the smart contract, see below).

There are three calculations required:

$$\text{Number of goosie minted} = (\text{WAP} * \text{coin volume}) * 0.54 * 1000$$

$$\text{Number of goosie required for burning} = \text{number of goosie minted} * (\text{volume of coin for withdrawal} / \text{total coin volume})$$

$$\text{Adjustment for current market price of goosie in gold} = \text{number of goosie required for burning} / (1000 / \text{current goosie gold market price}).$$

The number of goosie required for burning is reported to the user.

The user deposits the required number of goosie with the smart contract and provides an address for the collateral to be sent to.

The smart contract burns the goosie deposited and sends the collateral.

The contract then updates its records

$$\text{New coin balance} = \text{previous balance} - \text{current withdrawal}$$

The WAP remains unchanged.

For example:

Withdrawal Example	
Current WAP (oz gold)	0.003
Current volume	11
Withdrawal request	
volume	4
goosie minted	17.82
goosie for withdrawal	6.48
market adjustment	7.2

The number of goosie that have been minted is:

$$\text{Number of goosie minted} = (\text{WAP} * \text{coin volume}) * 0.54 * 1000$$

in other words:

$$0.003 * 11 * 0.54 * 1000 = 17.82$$

The number of goosie required for burning:

$$\text{Number of goosie required for burning} = \text{number of goosie minted} * (\text{vol of coin for withdrawal} / \text{total coin volume})$$

in other words:

$$17.82 * (4/11) = 6.48$$

Say goosie are currently trading at 1111 per ounce of gold rather than the peg of 1000 per ounce of gold, in other words at 90% of their intended value. As the value of goosie burnt has to always equal the assumed value of 1000 goosie per ounce of gold when they were minted, the volume needing to be burnt has to be adjusted:

$$\text{Adjustment for current market price of goosie in gold} = \text{number of goosie required for burning} / (1000 / \text{current goosie gold market price}).$$

in other words:

$$6.48 / (1000/1111) = 7.2$$

The user is informed that 7.2 goosie are required to be burnt to release the 4 requested coins.

### New Liquidity Message in Wallet Interface

In their wallet against each coin deposit the user can see if any more goosie are available to them due to the rising price of their collateral. The following message is displayed against each coin:

*Due to the increased value of your collateral XXX new goosie are now available. To mint new goosie withdraw your coin and re-deposit.*

The calculation for the increase in liquidity is:

*if (current coin price in gold > current WAP, (current coin price in gold – WAP) \* (current coin volume \* 0.54 \* 1000), 0)*

For example:

New Liquidity Example	
Current coin price (oz gold)	0.008
Current WAP (oz gold)	0.003
Current volume	11
Current price - WAP	0.005
New goosie available	29.7

The price of the coin used as collateral has increased from the 0.003 of the WAP to 0.008 ounces of gold each. The calculation to establish how many new goosie are available is:

*if (current coin price in gold > current WAP, (current coin price in gold – WAP) \* (current coin volume \* 0.54 \* 1000), 0)*

in other words;

*current coin price in gold > current WAP = true*

Therefore:

*(current coin price in gold – WAP) \* (current coin volume \* 0.54 \* 1000)*

or

*(0.008 – 0.003) \* (11 \* 0.54 \* 1000) = 29.7*

## The Goosie Blockchain

Goosie require a blockchain where ownership of goosie is recorded. This should be a low fee environment. Men and women are able to hold goosie with their own private keys without using the protocol. The protocol is only required for the minting/burning of goosie.

## Reducing fees

The smart contract is called in order to:

- mint new goosie

- send goosie to the blockchain
- burn goosie

Here are a number to strategies to reduce fees:

One solution is to develop using a low fee smart contract environment e.g. an Ethereum side chain like Polygon or L2 solution or non Ethereum platform.

As well as the above it may also be useful to create a means of calling coin, gold and goosie price data off-contract to ascertain if there is new liquidity for the user based on their current WAP for a coin and how many goosie need to be burnt for a withdrawal. In this way the contact is only called if the user wishes to deposit collateral or burn goosie to release collateral.

Security would not be critical as the algorithm only needs to give an indication of new liquidity to the user. For example:

#### **On App open**

For each coin deposit in a wallet where balance > 0 check whether new liquidity is available for the user by:

Check current WAP for coin

Check current coin volume

Check current USD prices for coin and gold

(For withdrawals check current gold value of goosie.)

The WAP and current volume may be available on the smart contract blockchain without having to call the contract itself and incur fees. Alternatively it can be stored on the user's wallet. Market price is accessed by the usual oracles.

The app displays the amount of new liquidity available to the user, or the required goosie for a withdrawal if such a request is made.

Only if the user proceeds to deposit goosie to be burnt is the smart contract called.

## **Appendix: How goosie works**

### **Risk Free Investing**

Goosie are always minted at 54% of the value collateral deposited. 4% are for the use of the system. 50% are for the man or woman to spend. This means by default 50% of a man or woman's assets held in the protocol are protected from their downside volatility. Their collateral may go down but they have secured the original deposit value by minting goosie whose value, pegged to gold, does remains relatively stable. This makes this portion of their collateral risk free while retaining its

upside potential.

## Double assets at no cost

By using the self-loan of goosie minted to purchase more of the coin used as collateral men and women can double the assets they own without it costing them another penny. Excluding fees and any changes to the price of the coin, if they use their goosie to purchase more assets eight times they will have doubled the assets they own. Each time they deposit half the previous amount of asset and have half the amount of goosie minted against them.

asset total	goosie minted
1.00	
1.50	50%
1.75	25%
1.88	13%
1.94	6%
1.97	3%
1.98	2%
1.99	1%
2.00	0%

Figure 1 Men and women can use the goosie self-minted by the protocol to double their assets at no cost to themselves.

## Money to spend

The smart contract automatically issues goosie as a self-loan to 54% of the value of the collateral posted. Excluding the 4% given for the use of the system this immediately unlocks liquidity to 50% of the value of the asset for men and women to spend as they choose. Their asset is held securely in the smart contract over which they retain full control. No third party is involved. They release the asset at any time by repaying the value of the goosie they have lent to themselves.

## Stable Money

Goosies are pegged to the value of gold. Gold remains the world's most enduring measure of stable value.

## No margin call

One might expect a need for a margin call in order to maintain the peg of goosie to gold if the value of the collateral falls below 100% coverage. As outlined in the paper [Next in DeFi: Loans With Now Margin Call Flawlessly 24 X 7](#) the Guarantor Value approach to maintaining a peg makes a margin call unnecessary.

## No tax

Crypto-currencies are generally treated in most jurisdictions as property. This means that the sale of the crypto coin is a taxable event if there has been an increase in its value. However men and women are not taxed on loans they take out from a legacy bank or DeFi lender. Goosie are self-loans and hence are not taxable events.

Second, goosie are pegged to the value of the gold, a medium and long term stable measure of value. This means even if there was tax to pay it is likely to be minimal compared to using a volatile crypto currency.

Also, goosie operates as a club. Clubs are private associations of men and women who have the ability to create their own jurisdiction (rules) as to how they operate. If men and women choose to mint goosie for their own private use this does not necessarily mean the sale of goosie becomes a taxable event in national jurisdictions.

## Never sell your digital assets

Using digital assets as money removes the opportunity to participate in their upside potential. By spending goosie, self-loaned against these assets a man or woman retains the upside potential of their investments while at the same time having money to spend.

## Interest free loans

By using the protocol men and women choose to lend money to themselves at zero interest. Their only costs are the 4% system contribution and other transaction costs.

## Secure

Men and women using the protocol retain control of their private keys at all times, both for the smart contracts holding their collateral and for their goosie wallet.

By operating in the private and with no central organisation the protocol is less vulnerable to regulatory changes.

## Keep on earning

Men and women can increase their liquidity in line with the rising value of their collateral.

As the value of their collateral rises men and women can unlock it by burning goosie and re-depositing their collateral in order to access the increase in liquidity available to them.

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