Umbrella Coin: Peer-to-Peer Insurance

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Abstract

The Umbrella Coin (UMC) team is building a next generation model for providing risk management for individuals and businesses. Our solution will be built on a decentralized, blockchain platform to avoid the fees and management costs associated with traditional insurance companies. We are aiming to have UMC tokens accepted as proof-of-insurance and insurance payouts for standard insurance policies such as life/health (L/H) and property/casualty (P/C). Total net premiums for L/H and P/C insurers was approximately 1.2 trillion in the United States alone in 2015[3]. Juxtapose net premiums with the total profits, approximately 100 billion[4], and there is a clear opportunity for the insured to cut out middle men and stop overpaying for coverage. Furthermore, policyholder's requirement to pay a deductible imposes an even greater overhead when attempting to make insurance claims. Our goal is to make UMC viable for deductible payments and later expand to full insurance policies.

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[3] http://www.iii.org/fact-statistic/industry-overview
[4] https://www.treasury.gov/initiatives/fio/reports-and-notices/Documents/2016_Annual_Report.pdf

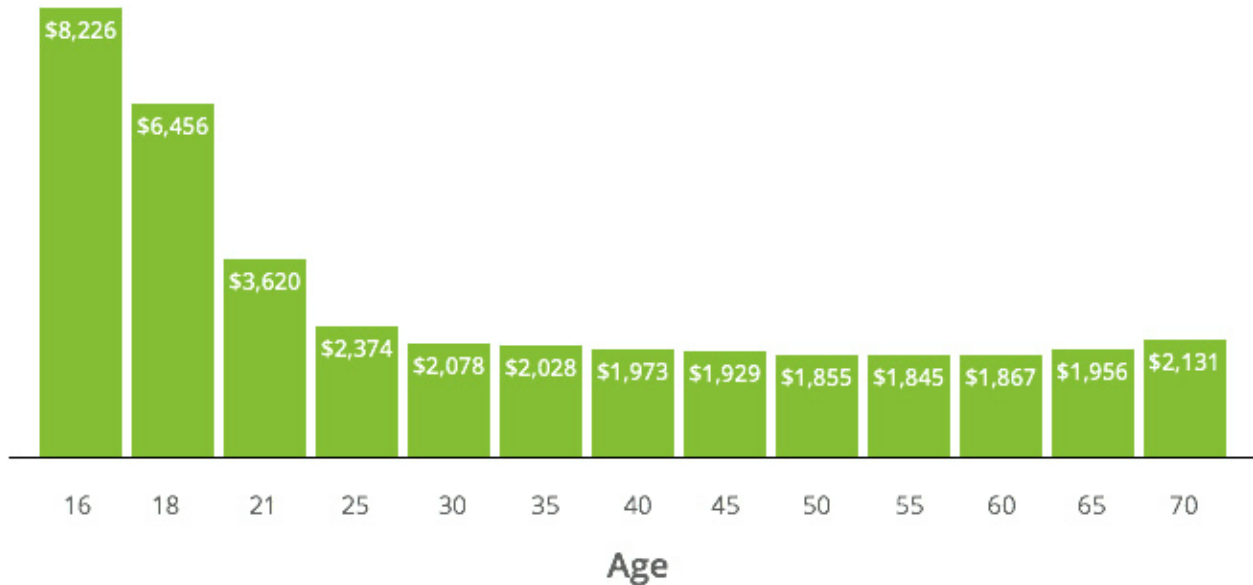# 1 CONTENTS

2   INSURANCE

Figure 1. Car Insurance Premiums by age[5]

An insurance policy is a financial contract by which the buyer is protected from financial responsibility in

the case of an emergency or unexpected life-event. There are a litany of items that can be insured

under a given policy including homes, automobiles, health care, or personal goods. While offering

peace of mind and a safeguard against risk for policyholders, insurance is a boon for insurers. Warren

Buffett, famous investor and CEO of Berkshire Hathaway, referred to insurance as Berkshire's "most

important sector" in his latest letter to shareholders [6]. Clearly, there are strides to be made for

policyholders to retain their value. This is a worldwide problem

[5] https://www.valuepenguin.com/average-cost-of-insurance
[6] http://www.berkshirehathaway.com/letters/2016ltr.pdf

2.1 MIDDLE-MEN

Many insurance policies are sold via an agent or broker. These agents are licensed to sell insurance in certain states or territories and make commission on their sale of insurance. The cost of their sale is passed on to the policyholder. While we believe that the profit insurers make off policyholders is absurd, additional parties gaining a profit even further reduces the cost/value ratio of purchasing a policy.

UMC solves this by allowing "policyholders" (or really, coin holders), to bypass the overhead of purchasing through agents and instead purchase from other coin holders.

2.2 HIGH PREMIUMS

As illustrated by figure 1, insurance is sold based on the perceived risk of the policyholder. Actuaries are responsible for assessing the risk factors of a policyholder and determining an acceptable rate for the policyholder. Based on perceived risk, or previous insurance claims, policyholders may be viewed as a greater liability and forced to pay more. Of course, in the event they do not make a claim, their premium is straight profit for the insurance agency with no gain for the policyholder. Furthermore, if a policyholder makes a claim, their rates will inevitably increase to offset the risk they are perceived to have.

UMC acts as both an investment vehicle and peace-of-mind for coverage. Insurance tokens purchased are property of the policyholder and can be used as redemption for insurance claims. Holders pay what they want and their investment is buoyed and grown by other UMC coin holders.

2.3   DECENTRALIZED CENTRALIZATION

Most interestingly about the current insurance model is the funding source and revenue. Insurance companies pool money from policyholder premiums and invest into commodities like stocks, bonds, precious metals, and perhaps even cryptocurrency. Insurance companies therefore collect the growth and interest on policyholder money instead of the policyholder themselves. Couple this with potentially high premiums outlined above and policyholders stand to lose on both their premium costs and what they would have collected in interest. The pooling model from all policyholders essentially causes the insurance industry to crowdfund funds needed to pay claims while simply operating as overhead for the funds. Insurance companies are reduced to glorified money managers, fighting to pay as little as possible in claims to protect their bottom line.

UMC follows the same decentralized, investment funding source as traditional insurance companies. UMC funds will be deposited into an index fund to ensure growth of coin holders, with excess funds being paid out in a claim based on coin holder voting. This ensures that claims will be paid out due to rising value of UMC and more policyholders switching to this model.
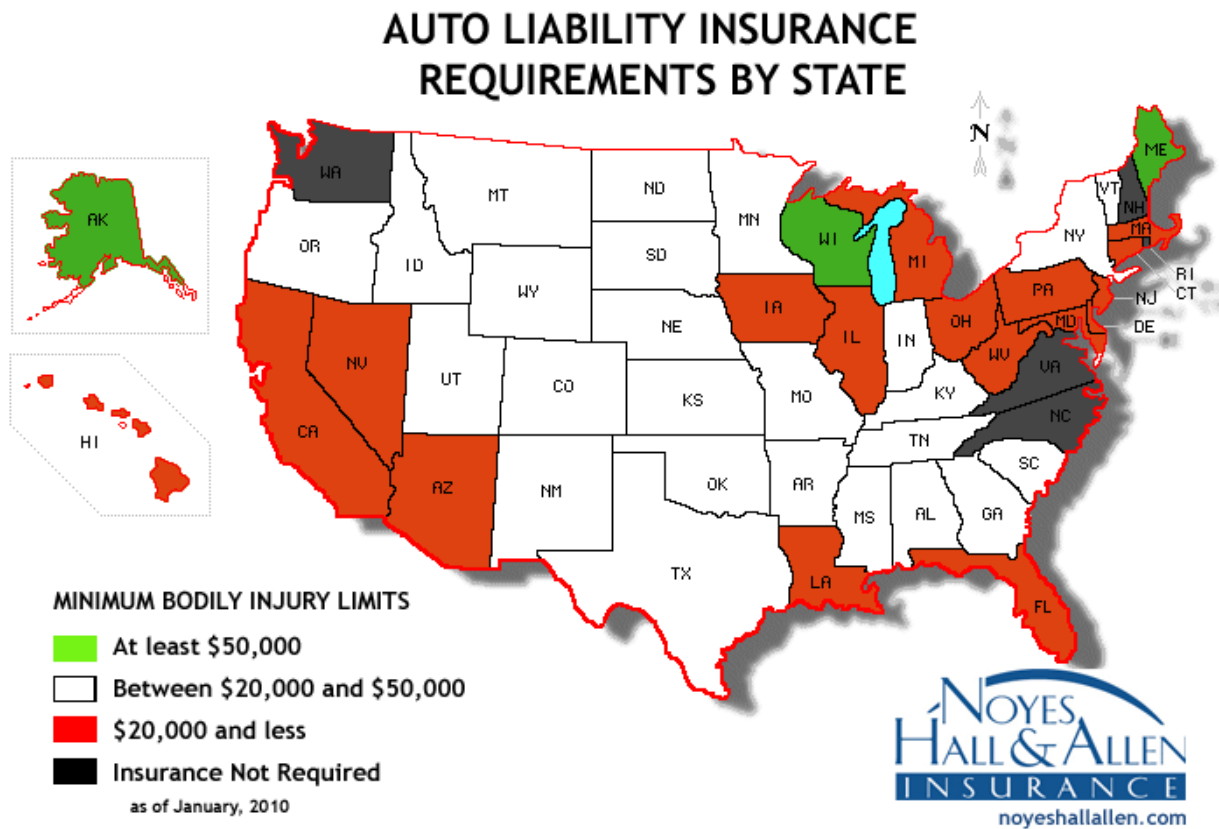
2.4 MANDATES

Figure 2. Insurance required by state[7]

While this is gaining much more prominence due to the Affordable Care Act (ACA), the march towards

required insurance has been going on for some time. Car insurance has been mandated in some US

states as far back as 1925[8], some landlords require renter's insurance as part of lease agreements, and

US employers are required to pay unemployment insurance and disability insurance[9], although the

latter varies by state. When mandates are coupled with the already profitable insurance business

model, policyholders end up losing even larger percentages of their income with the insurance

companies getting richer. An increase in policy count also highlights another problem: most insurance

[7] http://rsiclub.tk/gezy/car-insurance-requirements-by-state-2170.php
[8] https://en.wikipedia.org/wiki/Vehicle_insurance_in_the_United_States
[9] https://www.sba.gov/managing-business/running-business/insurance/insurance-requirements-employers

policies cover one liability which causes policyholders to require (and manage) multiple different policies and ensure these are in line with federal and state requirements.
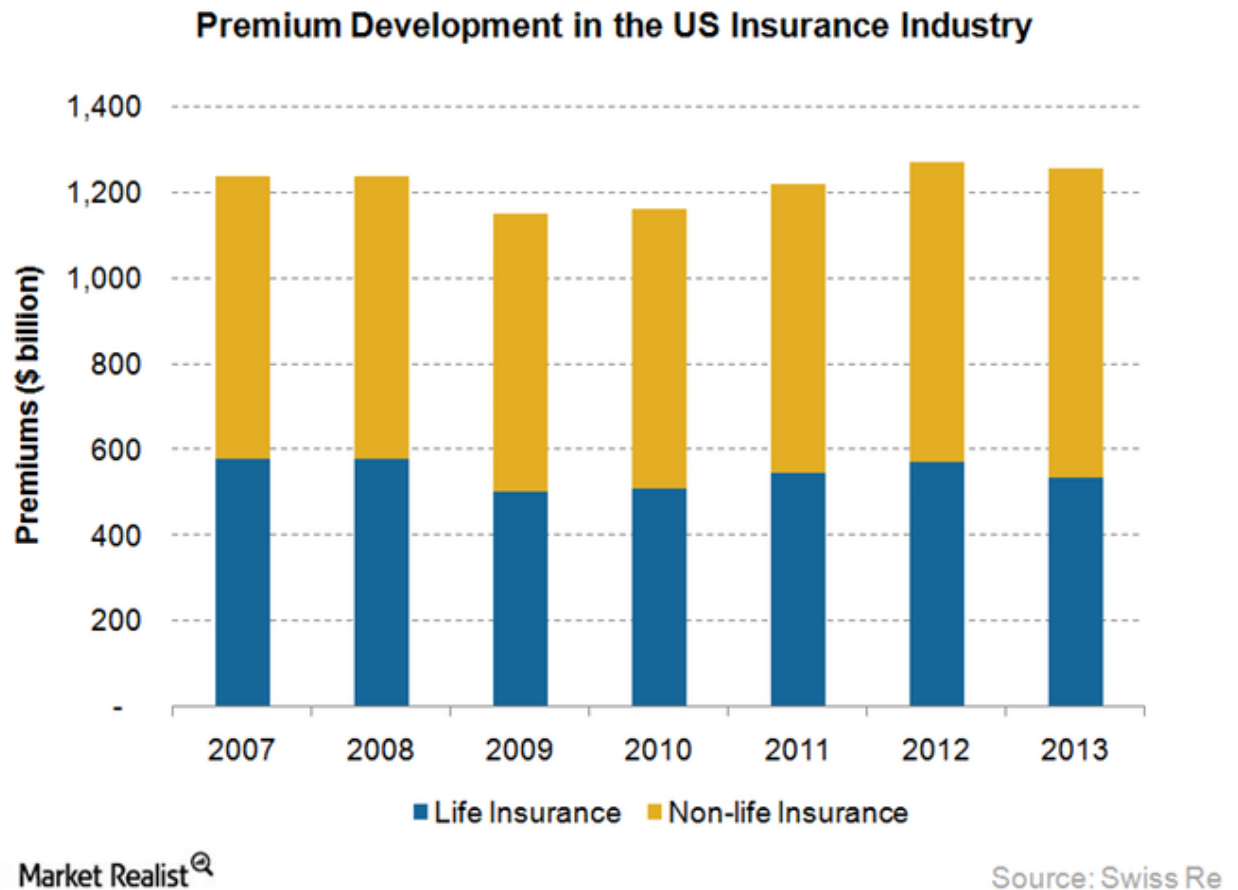
Premium Development in the US Insurance Industry

Figure 3. Insurance Premiums by year[10]

UMC will be a one-stop-shop for insurance. It will be sought to be accepted wherever and whenever insurance payouts are necessary, whether that be auto repair, house reconstruction, or medical bills. By retaining investment value in addition to organic growth, funds can also be withdrawn for a premium claim.

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[10] http://marketrealist.com/2015/02/us-insurance-industry-largest-world/

2.5   DEDUCTIBLES

Most policies require holders to pay out of pocket while submitting a claim, before the insurer agrees to cover any of the damages. Many policyholders are unable to pay their deductible, either forcing people into a payment plan or avoiding making a claim due to cost. In 2014, 28% of insured Americans avoided some aspect of medical care due to cost[11]. There is typically a tradeoff between premium and deductible cost, but this is risky proposition for policy holders. Lower premiums mean higher deductibles, which makes it less likely you use your insurance. Higher premiums mean lower deductibles, but that falls into all the pitfalls mentioned in the section above. We believe deductibles are the first major area UMC can make an impact while a financial base is established.

3   UMC

Initially, UMC will operate with coin holders acting as both policyholders and insurer, essentially combining the role of the traditional format. There will be two values stored with a coin: intrinsic and invested. The intrinsic value of the coin is self-explanatory: this is the value of UMC on open exchanges. The invested value is the portion of the investment pool which owning a token entitles the coin holder to in case of a claim. Initially, we propose the UMC network investing 0.25% of all traded funds into a blend of ETH and BTC. These coins are the lifeblood of the decentralization revolution and, as they grow, our liquidity will grow allowing UMC to pay claims while still retaining coin holder value. While there are fees to pay no matter the transaction on many blockchains, we aimed to leave ours low to encourage both buying and selling of UMC while still building future value for claim payouts.

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[11] http://www.commonwealthfund.org/~/media/files/publications/issue-brief/2015/jan/1800_collins_biennial_survey_brief.pdf

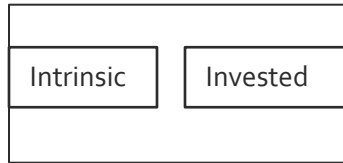|	
Intrinsic	Invested

Figure 4. UMC. One coin contains multiple values

Smart contracts will allow policies to be awarded and paid out on a peer-to-peer basis. Any float which is accrued from the investing of premiums would be paid out as rebates to all policy holders. Developers will not approve or deny insurance claims, nor will they be responsible for paying out insurance claims. The investment value of a coin is tied directly to that coin and cannot be manipulated. The investment value of a coin can be redeemed by a holder if and only if they submit a request via the UMC network and have it approved. Insurance claims will be submitted to the UMC network and withdrawn from the invested funds. If your claim cannot be paid by solely the invested funds in your holding, the remaining balance will be equally drawn from all coins in the pool. Policies and claims will be tied to a user's public key and any tokens they hold.
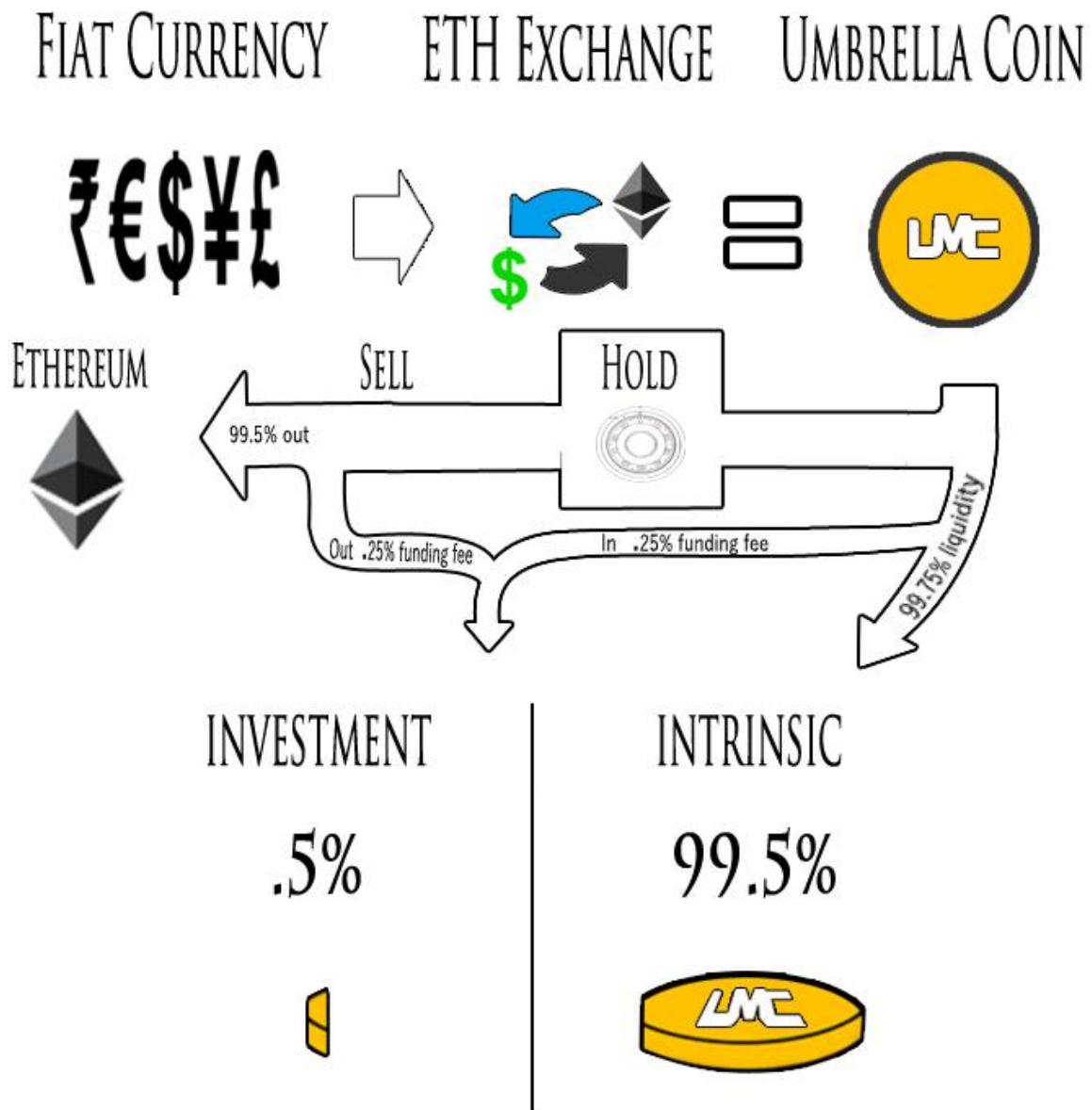
3.1 INVESTMENT VALUE

Figure 5. Basic UMC Ecosystem building value

3.1.1 Growing investments:

Take the following simple example:

1. UMC is valued on the open market at 1 ETH/coin

2. I initiate a buy for one token at the market rate

3. I pay an additional fee of 0.005 ETH for my one token giving my token a total value of 1.005 ETH – an intrinsic value of 1 ETH and an invested value of 0.01 ETH. The invested value is immediately converted to an ETH/BTC blend.

This value stays with the coin until a claim is made using this coin. When a user makes a claim, all coins associated with that wallet will be drained first in the case a claim is accepted. Because policies are associated with wallets, this prevents users from creating multiple accounts with single coins to successfully submit fraudulent claims.

3.1.2 Dividends

While this is not in the immediate scope of deliverables, the development team could envisage a coin holder vote in which a percentage of the invested value of each coin is redeemed for immediate payments in crypto or fiat.

3.2 POLICY CREATION, CLAIMS & MATURE DATE

A policy can be created by any coin holder. Their policy will be tied to their wallet address and a claim must be made against a certain policy. You cannot make a claim against a policy not associated with your address and you cannot make a claim if your address does not have any tokens.

Claims will initially need to be judged by the greater community to be approved or denied. If a claim is approved, the value of the coin holder's investment portion of their UMC will be credited first, followed by a payment from the greater UMC network drawing from other tokens. There will be a few safeguards to protect this from abuse:

3.2.1 Mature Dates

Each policy will have a mature date – ensuring these policies cannot be created and redeemed immediately. When initially launching UMC, we propose a mature date of 90 days.

3.2.2 Maximum Payouts

To avoid overdrawing or otherwise straining the finances of UMC, we will set a maximum payout for claims. We intend to only cover deductibles initially as they are financially less imposing and does not require the full adoption of UMC as a viable insurance alternative. As a result, we're placing the payout limit of 4BTC per wallet every 180 days.

3.2.3 Regulating Policies and Claims

We must impose some regulation on the ability to submit policies and claims. We need to rely the community for giving final approval for claims, as their money may be directly impacted. Because we are initially planning on supporting only deductibles, we will ask for verification via an insurance bill asking for the deductible amount. For example, a coin holder cannot create a policy for 4BTC when their deductible is 1BTC. We will attempt to have some automation in place is automatically reject claims, but the right to approve will be a 24-hour vote in the community.

4 ROADMAP

Our main product during the ICO is to create the infrastructure and client for deductibles, and the growth of invested capital of coins. Afterwards we will explore marketing this to existing agencies accepting insurance claims directly, shareholder voting for accepting claims, and expanding policies into different areas

June-July 2017 – Whitepaper written, website launched

August-October 2017 – Listing of UMC; Client and smart contract development for deductibles; intrinsic and investment architecture

September 2017 – Client launched

September-December 2017 – investment value tracking ETH; automatic claim review

November-December 2017- start working with existing partners to accept and acknowledge UMC as valid insurance after successful MVP. This will initially only target the United States

2018 – Client improvements; policy expansion (auto, home, life); coin holder policy improvements

5   CONCLUSION

UMC is being developed to decentralize insurance and put power into the hands of policyholders. We are targeting an aggressive development and launch date for our tokens and client allowing coin holders to submit and make claims. Initially we will target paying deductibles as part of existing insurance policies before expanding into more broad areas of insurance coverage. You can learn more about the team and keep up with our progress at:

Website

https://www.reddit.com/r/UmbrellaCoin/

https://twitter.com/umbrellacoin

http://www.bitcointalk.org

https://github.com/umbrellacoin

https://umbrellacoin.slack.com/