## SIPCoin

draft-rosenberg-stir-sipcoin-00

IETF 101

## Why I am here

ICO for my Blockchain startup doing virtual reality quantum computing

## Why I am here

ICO for my Blockchain startup doing virtual reality quantum computing


## Layers of Argumentation

- Verified caller ID will help but will not be sufficient
- Economic disincentives are the optimal technique
- There exists a cost target which can disincent attackers while not being overly burdensome for non-attackers
- The cost target can paid via computational work


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> Consistent feedback that people don't like this part there are other ways though!

## Verified Caller ID will not be Sufficient

- Verified international numbers from countries which offer numbers at low cost
- Domestic numbers allocated from "hungry" CLECs or other providers willing to offer them
- 10B numbers in North American numbering plan - lots of empty space
- Even with reduction of available number pool - temporal and spatial rotation of numbers


## Economic Disincentives are the Optimal Technique

- Well established technique for incenting or disincenting behaviors in other industries
- Without economic disincentive there is always incentive to workaround other techniques


## Is there a valid cost target?

- How much does a spammer make per call?
- 2.5B RoboCalls in April 2017
- $\$ 350 \mathrm{M}$ cost to Americans between 2011 and $2013=\$ 350 \mathrm{M}$ profit
- $\$ 350 \mathrm{M}$ over 36 months $=\$ 97.5 \mathrm{M}$ profit per month
- \$9.7M using 2.5 B calls $=.38$ cents/call
- $50 \%$ profit erosion $=$ death $=.19$ cents/call


## How much do consumers pay today?

- $\$ 100$ monthly phone bill
- Maximum of 3\% cost increase to prevent robocalls = \$3
- Average American makes or receives 6 calls/day. With symmetry, places 3 calls/day $=90$ calls/month
- $\$ 3$ cost per month / 90 calls $=3.3$ cents/call

BUT - we only need to increase costs for introduction calls - calls to users that have not accepted a call from the caller previously

## The Introduction Exception

- No cost for calls to numbers on a user's contact list
- No cost for calls to numbers, if that user previously accepted a call from that number and remained on the call for - say - 5 minutes
- No cost for calls to numbers, where the callee had previously called the caller
- Let us say that - with these kinds of rules $-1 \%$ of calls are subject to cost - the acceptable cost per call to a consumer could be 100x higher - 300.3 cents per/call


## There is a solution here!

More than a 50\% hit to
profit margin
Less than 3\% cost increase for consumers


## Ways to create cost

- Proof of work (proposal in draft)
- Proof of stake
- Direct payment to trusted CAs

Lunch Discussion today Hilton Meeting Rooms 1-4

