**Overview:** Rocket Pool (RP) is a decentralized staking network built on top of the Ethereum protocol. It is compatible with Ethereum 2.0 (Serenity).

**Who does Rocket Pool appeal to?**

1. Stakers:
   * Users who want to participate in staking, but do not have enough ETH to cover the 32 minimum
   * Users who do not have the expertise to run a node for staking
2. Node Operators:
   * Users who want to earn more yield vs the conventional way of staking on the main chain

**How does it work?**

* RP pairs up a node operator and multiple stakers to come up with a pool of 32 ETH via smart contract
  + The group of ETH used to make up the 16 ETH ***from stakers***is called "minipool."
  + Minipool validators are created by Node Operators first, which is just used perform consensus duties (i.e. proof of staking - my term)
  + Stakers' ETH get pulled into the minipool validators
* Stakers can bring as little as .01 ETH
  + Each ETH that stakers bring need to be deposited into the RP network in exchange for a RP token called rETH
    - Only stakers deposit their ETH to get rETH. Node Operators don't need to because they use their own ETH.
  + To leave the RP network and get their ETH back, stakers need to exchange/burn their rETH
  + Stakers must pay a fee to participate in RP
* Node Operators bring 16 ETH
  + They use their own ETH + the ETH deposited by stakers to perform "PoS" on main chain
  + Node Operators stake using RP's smart node software, which is used on the main chain
    - In general, node operators, not just RP node operators, all need to use some sort of node software. RP provides their own.
    - Node software is also just a smart contract
  + Node operators don't need to pay a fee. Instead, they earn fee-based commission for their services on top of the rewards gained from staking successfully
  + When node operators successfully validate, they earn nETH, which is RP native and can be exchanged for ETH (ideally 1:1)
* rETH and nETH (I think) can also be traded outside of RP network
* Both Stakers and Node Operators gain interest (or other staking rewards) over time in the form of rETH, which can get exchanged with ETH
* Any participant in the RP network can earn RPL (RP's token) if they choose to put up their own RPL as collateral for the network

**Penalty System (Slashing)**

* In PoS, node operators that fail to properly validate lose some or all of their ETH
* RP tries to mitigate this risk from impacting stakers by having an insurance funded by Node Operators (see below - RPL)

**Rocket Pool Protocol Token (RPL)**

* RPL is issued by the Rocket Pool network to act as a governance token and as a form of insurance
* When creating a minipool validator, 10% of that ETH's value must be staked in RPL as insurance
* This insurance is to protect the network against node operators getting slashed
  + When they get slashed, the staked RPL get sold for ETH to replace the lost ETH from slashing
* Node operators are incentivized to stake more RPL because they gain RPL over time (think interest)
  + Also dis-incentivizes bad behavior because Node Operators will lose out on gaining ETH staking rewards + RPL rewards

Source:

* <https://www.rocketpool.net/files/RocketPoolWhitePaper.pdf>
* <https://docs.rocketpool.net/overview/faq/#contact> (FAQ)
* <https://www.rocketpool.net/images/infographic-rocket-pool-2.png> (Helpful infographic)