

B. Operate differently in one, some or all respects

Application “X” might be similar to ‘Wallet’ or different. Network settings may also be very similar or different (eg. block size, frequency of adding new blocks, governance system, public vs. “private” vs. “permissioned”, use/non-use of a rewarded mining mechanism, etc.)

C. Be one among many (or many thousands) of different and fully independent networks

There are few clear limits as to how far this can be taken with regards to the number of networks that can run on the same P2P underlay¹⁹ or how many different “Applications” may be developed. Most importantly, how many of those would be well-supported as open public networks, or otherwise.

The differences are not in the network operations, topography, nor in what the Application does. As a matter of fact, all of that can be as similar as MainNet and TestNet are to each other, or the very opposite. In fact, what does matter is enabling anyone who desires to deploy a fully independent blockchain network, the power and the ability to do that without incurring very high costs. For this, it is essential that such individuals have access to the required Proof-of-work processing capacity to power up their blockchain application. So, it is important to focus on removing the complexities involved in installing and maintaining blockchain networks.

The high costs involved in doing this, along with the complexities involved in the installation and maintenance of blockchain networks often prevent innovators from effectively using this technology. Honestly, until this is taken care of, there is no point blaming the Byzantine fault tolerance or concluding the problem as unsolvable.

We strongly believe that the networking technology will evolve, and this problem will soon be a thing of the past. In the world of technology, every problem has a solution and therefore, technology involved in processing network headers will certainly improve. So, the question before us is how soon this will happen and how prepared we are to embrace this change.

¹⁹ Some of the most interesting applications are in creating networks very different from current networks. Eg. the P2P underlay might be something other than the public internet, nodes might be IoT devices, etc. Or the whole network may run inside a device.