What is Vertcoin?

Vertcoin is a cryptographic currency, similar to Bitcoin and Litecoin, with one major difference. As the forerunner of the digital currency movement, the original Bitcoin developers were unable to perceive all potential threats that would arise to challenge it's mission as a decentralized currency.

Millions of dollars were spent by various companies to build application specific integrated circuit (ASIC) computers in an attempt to monopolize mining. These devices made it so GPUs and CPUs were no longer useful in the mining process. As a result, the vast majority of Bitcoin mining and transactions would now be processed by large data centers that required hundreds of thousands, or millions of dollars in investment.

Now that Bitcoin computational power is handled almost entirely by large data centers, the currency has rapidly changed from a distributed, decentralized currency, to one that is much more centralized and vulnerable. Companies such as Cex.io are routinely hitting 40% PoW computational power on a daily basis, and will soon be able to perform 51% attacks at will, if they so choose.

Due to the problems ASIC chips brought on the digital currency platform, a new currency, Litecoin was created. Litecoin attempted to utilize the Scrypt hashing algorithm, which is more memory intensive than SHA256, to deter ASIC use. As of January 2014, there are now Scrypt ASIC chips being deployed by the Chinese for mining. So far, around 1000 Mhash of Gridseed ASIC chips have been brought online and used on the litecoin and middlecoin.com network.

The Chinese chips have not been released on the greater market at large, but eventually they will, and the same problems that SHA256 currency faces will come to the Litecoin and other Scrypt currency networks next.

Where does Vertcoin fit into this?

Scrypt was utilized by Litecoin to try and deter ASIC use because large memory requirements are the best way to try and make ASIC financially unfeasible. Litecoin held out for a while, but the original memory requirements in the barebone litecoin distribution were just not high enough to lock out ASIC completely. Vertcoin has now been released as the logical evolution of Litecoin and introduces what's known as "Adaptive N-Factor". The N-factor component of Scrypt determines how much memory is required to compute the hashing functions. Vertcoin N–factor increases with time to stay one step ahead of any possible ASIC development.

For the long, foreseeable future, GPU computing will be the fastest method of computation for Vertcoin, but CPU computation will eventually make gains as N-factor increases.