

## **VOSTOEMISIO - Core Monero Concepts – Nodes Script**

Monero is maintained by a decentralized network of nodes run by users around the world. Nodes serve three essential functions – distribution of the blockchain history, verification of cryptographic soundness, and the transmission of new peer to peer transactions. The Monero network would not exist today if nodes were not running, and as an incentive, managing your own node leads to the most secure and private experience that Monero users can have.

A node can be run on any computer with an internet connection and enough hard drive space. When you first start a node, it synchronizes to the network, downloading a copy of the entire blockchain from other peers. Over time, the blockchain will continue to grow as more transactions are sent. If you find yourself short of hard drive space, you have the ability to trim the size of the blockchain by two thirds through a process known as pruning. This will have no effect on your privacy or the soundness of the blockchain.

It should be noted that running a node is not a requirement to use Monero. Many Monero users access nodes remotely using the official core wallet, trusted third party wallets, or one of several mobile applications. This is because node operators have the option of allowing their downloaded blockchain to be accessed, which permits the remote user to scan the nodes blockchain with their private key and thereby send private transactions from their personal device.

Remotely accessing a node does not reveal the amount of XMR or the destination of the XMR being sent, however, bad actors can log IP address or access times of the remote user. Because of this trust involved, it is recommended that remote users familiarize themselves with onion routing and only use community approved nodes for their security, and furthermore, that other more active users such as merchants operate their own node.

With a node that is active, the user will have stronger privacy because of Dandelion++ -- when running an active node, a passive observer of the network will not be able to tell whether you are transmitting transactions on the Monero network, or simply relaying transactions from other nodes on the network. Notice how the transactions being transmitted from the personal node blends in with the relayed transactions from other nodes, as well as the transactions being sent from remote users [this will be illustrated]. This allows

you to hide your transactions behind all the other transactions being relayed through your node. Therefore, with an active node, a passive observer would not be able to tell when you connect to the Monero network to scan the blockchain or send a transaction.

Monero Nodes are a vital core concept that is the foundation for every Monero transaction. Check out [Getmonero.org](https://getmonero.org) and run your very own node today!