Farmer

BPX farmers are analogous to Bitcoin's miners. They earn block rewards and fees by finding valid proofs of space inside their stored plots. The farmer processes don't maintain a copy of the Beacon Chain, but they trust a beacon client to provide updates. The beacon client and farmer processes communicate with each other using the farmer protocol.

Farmers communicate with harvesters (individual machines, including the farmer machine, that actually store the plots) through the harvester protocol.

Farmers operate by waiting for updates from a beacon client, which gives them new signage points (equivalent to a lottery's winning numbers) approximately every nine seconds. Farmers then send the signage point to each harvester, to check whether any winning proofs of space exist. If the harvester finds any valid proofs, it sends them to the farmer. Farmer has a private key, which is used for signing blocks. After receiving signed block from the farmer, beacon client creates a new beacon chain block and propagates it accross the network.