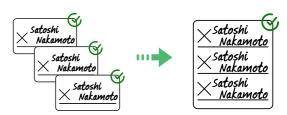


TAPROOT

A SHORT OVERVIEW OF BITCOIN'S TAPROOT UPGRADE

\updownarrow Batch signature validation \updownarrow

Validating digital signatures usually requires a lot of efforts from a computer's CPU. Now transaction signatures can be grouped together and validated as one unit, instead of one by one.



\updownarrow Better privacy while spending \updownarrow

bitcoin allows you to specify multiple ways to spend a coin. Prior to Taproot, all these ways had to be made public when the coin was spent. This is bad for privacy, especially for coins with unique spending rules, making them easy to identify.

8

What is the Taproot Upgrade?

Taproot is a set of improvements that allow *bitcoin* to be used in a more scalable and private ways.

Activation date: November 2021 Block height: 709,631.

Taproot enables some cool features

$\stackrel{\star}{\simeq}$ Key and signature aggregation (MuSig) $\stackrel{\star}{\simeq}$

If you have public keys A, B and C, they can be combined into one. The same is true for the corresponding signatures.



This means complex multisignature spends can look like ones that only involves 1 key.

2

7