

BUIP064: Support Segwit2x with an official implementation
Submitted on 1st September 2017 by solex

Motivation

Segwit has activated on the Bitcoin network.

This is due to miners respecting the New York Agreement and part-fulfilling their side of it. Representatives of most miners and a number of major Bitcoin companies made this agreement to increase the block size limit to 2MB and activate Segwit. The increase to 2MB is scheduled to occur at block 494,784 (about mid-November 2017).

Bitcoin Unlimited must remain responsive to the collective will of its membership. The sense of its membership can be observed in ways other than BUIP votes, and one important signal is the ratio of deployed nodes where a subset of them are controlled by BU members. It is now one month since the advent of Bitcoin Cash, which is a pure large-blocks spinoff, and some 250 *BUCash* full-nodes are deployed. There are a further 690 *BitcoinUnlimited* full-nodes deployed still supporting the Bitcoin network, about 70% of all BU nodes (source: bitnodes.io). Those node owners are clearly anticipating potential success of the Segwit2x initiative.

Segwit was deployed as a soft-fork and one of the major drawbacks of these is that the larger the functional change in a soft-fork the more severe is the "zombification" of nodes which do not deploy the soft-fork. This applies to the 690 BU nodes which are now unable to mine blocks, as well as being unable to verify and propagate some witness data.

It is not acceptable for the BU organization to sit by and allow the increasing zombification of many full nodes which have been deployed by users of its software in good faith.

Authority to act already exists because Bitcoin Unlimited was launched as onchain scaling patch-set *on top of* Bitcoin Core. The guiding principle here is that BU members can veto Bitcoin changes (such as RBF) or vote for new changes (such as Xthin), but, in the absence of such direction the Developer has discretion to merge Bitcoin Core updates.

Objectives

The purpose of this BUIP is to upgrade the next version of the official *BitcoinUnlimited* implementation with the Segwit software in order to be fully compatible with Segwit2x, as per the New York Agreement.

The BU Developer will have the choice of constructing a client as follows:

- (a) rebase upon a later version of the Core Project repository and preserve the Segwit functionality.
- (b) fork the BTC1 repository and apply necessary changes to make it consistent with BU's passed BUIPs i.e. remove RBF, add emergent consensus for block limit determination, etc.
- (c) merging the SegWit patchset into the current BU (dev) tree

Project Duration

Due to time pressures it may be only option (b) which is viable before the 2MB activation date. Ideally a new version should be available one month beforehand.

Funding

This version is to be funded as per historical funding for any upgrade.

Impact

A base-block size limit increase from 1MB to 2MB on Bitcoin may occur and be a new minority fork, or it may be the majority hashpower and the Bitcoin Core project forks itself off the network. The process may be protracted and messy or quick and clean. There are a lot of unknowns, but what is known is that the 690 Bitcoin Unlimited nodes currently deployed are unable to participate fully in this network, *even if the 2MB is activated and larger blocks allowed*. Ideally an official *BitcoinUnlimited* implementation, which is as fully featured, or even better than BTC1, should be offered to the users to help scale Bitcoin.

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#1solex, Sep 3, 2017

Last edited: