

BUIP089: Blockchain Engineer Services Contract
21st April 2018 by solex

Motivation

As explained in [BUIP062 Funded Development, aka Devpool](#), since BU was formed as an organization in November 2015 it has relied upon a combination of volunteer blockchain engineers (developers) and some directly funded by BU supporters.

While the Devpool initiative has some success and a number of small mini-projects funded, an important issue has arisen where qualified developers rightly want long-term stability in their income. This is exacerbated in a highly competitive field where many companies struggle with the global shortage in the blockchain engineer marketplace, making piece-meal work even less attractive.

There exists a requirement for a full-time developer to sub-contract directly to BU.

Objectives

The objective of this proposal is hire a qualified "in-house" developer who will focus principally on the BUCash client in many different areas. He/she will report to the Bitcoin Unlimited Lead Developer, [@theZerg](#).

Project Duration

The funds authorised on this BUIP are for a maximum of two years. However, one months notice for either party is sufficient to terminate the service contract.

In the event of an early termination, a new developer may be contracted to continue the work. If the decision is that no developer is to be contracted, then any unspent funds revert to the consolidated fund, and a subsequent BUIP will need to be approved to continue funded development in a similar manner.

Project Team

The developer hired for this role will work closely with theZerg and other BU developers, operating as a contractor responsible for their own accounting and tax reporting.

Summary of Approved Tasks and Projects and Description of Activities

1. *Continuous:*
PR review, release builds.
2. *Initial Projects:*
Enhanced block storage (database based) will allow pattern based pruning, so pruned nodes can offer some blocks to IBD and a random set of pruned nodes will be very likely to contain the entire blockchain access to any transaction by transaction hash (add/validate txindex table).

Access to transactions by bitcoin address (add address to transaction table) -- helps light wallets.

Store block header hashes (will dramatically speed up startup)

Store transaction inputs by "chainref" (block, tx index, vout index) rather than (transaction id, vout index). This will be a lot smaller.

3. *SPV/light wallets*:
Investigation of other technologies to help advance this wallet-type.

Anticipated Challenges and Uncertainties

Standard development issues only.

Budget

The budget for the Blockchain Engineer Services Contract (not employment) is \$70,000 per year for 2 years (allocated), paid monthly in arrears.

Payment is offered in either BCH or BTC, but not in any fiat currency, at the end-of-month rate prevailing on bitcoin.com.

The BU President or Secretary will co-sign payment for monthly invoices when presented for payment.

The services contract will be separated in the annual accounts.

Impact

The overall pace and quality of BU development is expected to be improved by this initiative resulting in more BU full nodes in the global Bitcoin Cash network, supporting large-blocks specifically and onchain-scaling generally. Software developed under this BUIP will be open-source and available to other BCH dev teams.