

## BUIP147: Fund Developer 2

Submitted by: Griffith

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### **Summary**

I would like to continue working on the Bitcoin Unlimited project as I have been doing for roughly the last 2 years.

### **Budget**

This BUIP authorizes 96.000 USD a year (paid monthly in crypto) to continue to work on BU software. This amount is inline with other qualified developers.

### **Contributions to this project**

In the last couple of years, in addition those regularly occurring small tasks that no one is ever impressed with, I have made the following significant contributions:

- Updated the XVersion spec and implemented the changes
- New deadlock detection code that covers all of the new mutexes that BU has added.
- Implement a new block storage method that uses a database instead of block files.
- Reworked the fee estimation process so that fees stay lower and removed the assumption the mempool will never be empty.

### **What I'd like to do this next year, time permitting**

- Storm/Bobtail: I am currently continuing awemany's work on storm. I am working with the Umass researchers to rework storm under bobtail and produce a working prototype of the new bobtail system. More details on this can be found under BUIP 131.
- Graphene porting: Although this is not work directly on the BU client itself, there is great value in getting other clients to use the tech developed by BU. In BCH there is a "multiple implementation ecosystem" that it is currently quite heavily dominated by one implementation almost analogous to bitcoin core in BTC. I consider porting graphene to the other implementations to be another step in the direction of showing that the other implementations also have value.
- UTXO improvements: I currently have a PR under development to alter the underlying data structure of the UTXO in memory to allow for multiple threads to read and write to the UTXO at the same time decreasing the amount of the time it takes to process transactions and blocks.

### **Authority for a contractual arrangement**

The purpose of this BUIP is to get membership approval for expenditure of funds up to a maximum of the budget for the time interval stated in the BUIP (1 year) while also providing some insight to some of the work which will result. If the BUIP is approved, the elected offices are authorised for BU to offer a contract for consultancy services with usual defined terms and clauses. The agreement defines the details including but not limited to hourly rate and termination conditions. The portion used is entirely dependent on how much time is worked and invoiced.