

Tau-Mobile Forum Design

Block and transaction structure

Change log:

Date	Modifier	Items
2019-09-17	TaiChen Liu	New
2019-09-18	TaiChen Liu	IPFS Hash Based
2019-09-19	TaiChen Liu	Modification in field and add notes in block structure.
2019-09-24	TaiChen Liu	Modification in filed, with telegram etc
2019-10-25	TaiChen Liu	Add multiaddress, and DM info

1. Block Structure

Field	Size	Notes
version	8 Bits	
timestamp	32 Bits	
nodeId	256 Bits	Hash of IPFS multiaddress info, which is used for discovery of IPFS TAU node
previousHash	160 Bits	
signature	520 Bits	
Total: 976 Bits= 122 Bytes		
Notes: There is no block header in POT, which is different from POW. POT and POS both need detailed transactions to calculate mining power, which is one key in validation of blocks.		

2. Transaction Structure

	Field	Size	Notes
General Info Total: 600 Bits= 75 Bytes	version	8 Bits	
	option	8 Bits	
	timeStamp	32 Bits	
	expireTime	16 Bits	
	fee	16 Bits	Genesis community tx and Message tx is doubled, Either power.
	signature	520 Bits	
Genesis community transaction Total: 303 Bytes	cName	20 Bytes, same as Reddit	
	cCoinOfferAccount	32 Bytes	Telegram ID for coin airdrop
	cAbstract	144 Bytes	
	cDescription	32 Bytes, IPFS file hash	
Account name transaction Total: 159 Bytes	aCommunity	32 Bytes, genesis community hash	TAUNet: 0x0
	contactName	32 Bytes	Telegram ID for DM
	aName	20 Bytes, same as Reddit	
Message transaction Total: 315 Bytes	mCommunity	32 Bytes, genesis community hash	TAUNet: 0x0
	mRefer	32 Bytes, correspondent message transaction	New: 0x0 Quote+ Response: Message tx hash
	mAbstract	144 Bytes	
	mContent	32 Bytes, IPFS file hash	
General token transaction Total: 132 Bytes	tCommunity	32 Bytes, genesis community hash	TAUNet: 0x0
	tAddress	20 Bytes, receiver	
	tAmount	5 Bytes, token amount	

Maximum: 90 Bytes+ 5* 315 Bytes= 1665Bytes= 1.63 KB