

## Send funds to an external wallet

BitGo doesn't take the fee from the amount sent. Instead, BitGo charges the fee on top of the transferred amount. So the user needs to have more funds than he is sending. What is even worse is that we do not know how much the fee will be. It also works differently for BTC and ETH.

Our implementation:

### BTC send

1. The fee is estimated as **X** using the BitGo endpoint
2. We reserve **amount + X \* 2** from the user account in the ledger using the user reservation account
3. We try to send money from our BitGo wallet to the destination address
4. We return money from the reservation account to the user account
5. If step 3 wasn't successful, the process stops
6. If step 3 was successful we create a transaction with the amount and actual fee

### ETH/USDT send

In step 6, we charge the user in the ledger with the actual fee, but on BitGo side this fee is deducted from ETH gas tank, so you have to prefund e.g. from BitGo wallet. You'll lose some money as a transaction fee (~70\$), so it is recommended to prefund it with the amount which will be enough to pay for fees for a long time.

Also steps 4 and 6 are executed only after we receive the notification from BitGo about sending with the correct fee value. For BTC we don't wait for notification.

Step 1 is not working properly due to BitGo issues. So here we can use our constant **X** as an easy solution. **UPD it seems that these issues are only on testnet and for the main net, it returns realistic fees.**