Part 1: Off Exchange Interface - Purchase

To submit a purchase order, user send 1000 (or more) NBT from a specified send-from address to BearBTC or BullBTC share address. Purchase order will be accepted at end of each month after the EOM NAV of pool shares is computed. The ETP A shares purchased will automatically spilt into ET BearBTC and ET BullBTC with same number of shares of each instrument. The send-from address will be registered as UserAddr in NuLagoon. The formula is as follow:

```
the number of ET BearBTC share purchased = purchase amount
/ ( NAV of ET BearBTC + NAV of ET BullBTC )
the number of ET BullBTC share purchased = purchase amount
/ ( NAV of ET BearBTC + NAV of ET BullBTC )
```

- Example of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- BBearBTCaddr , 1000
- Bzzzzzzzzzzz , ...

> *Assuming the NAV of BearBTC is 1.1 and the NAV of BearBTC is 0.9, then 500 share of BearBTC and 500 share of BullBTC will be credit to UserAddr Bxxxxxxxxx.*

- Redemption

To submit a redemption order, user send a certain amount of NBT from UserAddr to NuLagoon purchase address. Redemption order will be accepted at end of each month after the EOM NAV of pool shares is computed. Redemption requires the same number of BearBTC share and BullBTC share to combined together. 10,000 times the amount of NBT sent in redemption order will be interpreted as the number of BearBTC share and BullBTC share user would like to cash out. The formula is as follow:

```
the valid number of share in redemption = MIN ( the number
of BearBTC share in holding, the number of BullBTC share in
 holding, 10000 * amount sent in redemption order )
the amount of cash out = the valid number of share in redem
ption * ( NAV of ET BearBTC + NAV of ET BullBTC )
```

- Example of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- BBearBTCaddr , 0.1
- Bzzzzzzzzzzz , ...

> *Assuming UserAddr Bxxxxxxxxx is holding 2000 share of BearBTC and 1200 share of BearBTC, then 1000 share of BearBTC and 1000 share of BullBTC will be cash out. Given the NAV of BearBTC is 1.1 and the NAV of BearBTC is 0.9, 2000 NBT will be sent to UserAddr Bxxxxxxxxx.*

- Transfer Pool share to another user

To submit a Pool share transfer order, user send a certain amount of NBT from UserAddr to BearBTC or BullBTC share address and 0.0001 NBT to receiver's address in one Nubits transaction. The transfer order will be processed every minute. 10,000 times the amount of NBT sent in redemption order will be interpreted as the number of BearBTC share and BullBTC share user would like to send out. The formula is as follow:

```
the number of share sent = MIN ( the number of BearBTC / Bu
llBTC share in holding, 10000 * amount sent in redemption o
rder )
```

- Example of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- BBullBTCaddr , 0.1
- Bzzzzzzzzzzz , 0.0001
- Bsssssssssss , ...

> *Assuming UserAddr Bxxxxxxxxx is holding 1200 share of BearBTC, then 1000 share of BullBTC from UserAddr Bxxxxxxxxx will be transferred to UserAddr Bzzzzzzzzzzz.*

Part 2: On Exchange Interface - Deposit

To make a cash deposit, user send 100 or more NBT from UserAddr to ExchangeBuy or ExchangeSell address. The send-from address will be registered as UserAddr in NuLagoon. The formula is as follow:

```
the number of share sent = MIN ( the number of BearBTC / BullBTC share in holding, 10000 * amount sent in redemption order )
```

- Example of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- ExchangeBuyAddr , 200
- Bsssssssssss , ...

> *200 NBT will be credit to UserAddr Bxxxxxxxxx 's cash account.*

- Buy / Sell Orders

To submit a buy or sell order, user send a certain amount of NBT from UserAddr to BearBTC / BullBTC share address and ExchangeBuy / ExchangeSell address in one Nubits transaction. 10,000 times the amount of NBT sent to BearBTC / BullBTC share address will be interpreted as the size of share user would like to buy / sell. 1,000 times the amount of NBT sent to ExchangeBuy / ExchangeSell address will be interpreted as the price of share user would like to buy / sell. The formula is as follow:

```
the valid number of share to sell  = MIN ( the number of sh
are in holding, 10000 * the amount sent to BearBTC / BullBT
C share address )
```

```
the valid number of share to buy  = MIN ( the amount of cas
h in holding, ( 10000 * the amount sent to BearBTC / BullBT
C share address ) / (1,000 * the amount sent to ExchangeBuy
 / ExchangeSell address ) )
```

- Example of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- BBullBTCaddr , 0.1
- ExchangeSellAddr , 0.1231
- Bsssssssssss , ...

> *Assuming UserAddr Bxxxxxxxxx is holding 1200 share of BullBTC, then the exchange order book will indicate that UserAddr Bxxxxxxxxx want to sell 1000 share of BullBTC at the price of 1.231.*

- Example 2 of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- BBearBTCaddr , 0.1
- ExchangeBuyAddr , 0.1231
- Bsssssssssss , ...

> *Assuming UserAddr Bxxxxxxxxx is holding 1200 NBT in cash account, then the exchange order book will indicate that UserAddr Bxxxxxxxxx want to buy 974.81 share of BearBTC at the price of 1.231.*

- Cancel Orders

To submit a cancel order, user send a certain amount of NBT from UserAddr to BearBTC / BullBTC address and 0.0011 NBT to ExchangeBuy / ExchangeSell share address in one Nubits transaction... 10,000 times the amount of NBT sent to BearBTC / BullBTC address will be interpreted as the size of order user would like to cancel. The orders which are closer to the the middle price on order books will have higher priority to be canceled.

```
the amount of cash withdraw = MIN ( the amount of cash in h
olding, 10000 * amount sent in redemption order )
```

- Example of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- BBearBTCaddr , 0.1
- ExchangeBuyAddr , 0.0011
- Bsssssssssss , ...

> *Assuming UserAddr Bxxxxxxxxx is buying 1000 share of BearBTC at price 1.1 and buying another 500 share at price 1.2 in exchange order book, then order buying 1000 share at price 1.1 will be canceled.*

- Withdraw

To submit a withdraw order, user send a certain amount of NBT from UserAddr to ExchangeBuy or ExchangeSell address. 10,000 times the amount of NBT sent in withdraw order will be interpreted as the amount of cash user would like to withdraw. The formula is as follow:

```
the amount of cash withdraw = MIN ( the amount of cash in h
olding, 10000 * amount sent in redemption order )
```

- Example of a Nubits transaction:

> *input:*

- Bxxxxxxxxx , ...
- Byyyyyyyyy , ...

> *output:*

- ExchangeBuyAddr , 0.11
- Bsssssssssss , ...

> *Assuming UserAddr Bxxxxxxxxx is holding 1200 NBT in cash account, then 1100 NBT will be sent to UserAddr Bxxxxxxxxx.*

Part 3: NAV Calculation

- NAV of ETP A

The fund in ET pool, which is not including fund in users' exchange cash account, will work together with NuLagoon Pool A, C, D. The percentage movement of NAV of ETP A will be exactly same as that of NAV of Pool A.

```
Total asset = the amount NBT + the amount of BTC * BTC pric
e + custodian fee - manage fee
NAV of ETP A today  = NAV of ETP A yesterday * total asset
today / total asset yesterday
```

- NAV of BearBTC

BearBTC is moving at inverse direction of BTC price with exact 2 times

leverage

```
NAV of BearBTC = 1 - 2 * (BTC price / base BTC price - 1))
```

- NAV of BullBTC

BullBTC is moving at same direction of BTC price with approximate 2.5 times leverage

```
NAV of BullBTC today = 2 * NAV of ETP A today - NAV of Bear BTC today
```

- Dividend payment and NAV adjustment

When NAV of BearBTC is 5 times (or more) of NAV of BullBTC, the dividend payment and NAV adjustment will be triggered. The number of both BearBTC and BullBTC shares will shrink (1 / NAV of BearBTC) times, and the NAV of them will be set at 1 again. In addition, a certain number of BearBTC and BullBTC shares will be paid to BearBTC holders as a dividend. Same procedure applies when the BullBTC worth 5 times than BearBTC. The value of users’ holding doesn’t change after the dividend payment and NAV adjustment.

```
the NAV of BullBTC / BearBTC shares after adjustment = 1
the number of BullBTC / BearBTC shares after adjustment = t
```

```
he number of BullBTC / BearBTC before adjustment * the less
 NAV of BullBTC and BearBTC before adjustment
the number of BullBTC / BearBTC shares as dividend = (the g
reater NAV of BullBTC and BearBTC - the less NAV of BullBTC
 and BearBTC) * the number of shares of instument which has
 greater NAV /2
```

- Example of dividend payment and NAV adjustment:

> *NAV before adjustment*

- BearBTC: 0.4
- BullBTC: 2.0
- Pool ET: 1.2

> *Holding before adjustment*

- User A: 1000 shares of BearBTC, Value = 400
- User B: 1000 shares of BullBTC, Value = 2000

> *NAV after adjustment*

- BearBTC: 1
- BullBTC: 1
- Pool ET: 1

> *Dividend payment*

- User A: None
- User B: 800 shares of BullBTC + 800 shares of BearBTC

> *Holding after adjustment*

- User A: 400 shares of BearBTC, Value = 400
- User B: 400 shares of BullBTC + 800 shares of BullBTC + 800 shares of BearBTC, Value = 2000

Part 4: FAQ

- How to use BearBTC to hedge volatility risk of my BTC Holding

By buying the amount given by following formula you can exactly hedge the volatility risk.

```
exact hedge amount of BearBTC = BTC Holding * base BTC Pric
e / 2
```