

7 December 2022

Binance Capital Management Co. Ltd.
c/o Harkom Corporate Services Limited,
Jayla Place, 2nd Floor, Road Town,
Tortola, VG1110,
British Virgin Islands.

Dear Sir / Madam

BINANCE CAPITAL MANAGEMENT CO. LTD. (“BINANCE”) – PROOF OF RESERVE (“POR”) REPORT

Our report is solely for the purposes of offering Binance’s customers and prospective customers additional transparency and reassurance that their *In-Scope Assets* are collateralized, exist on the blockchain(s) and are under the control of Binance at the below mentioned reporting date. For the purpose of this Agreed-Upon Procedures (“AUP”) engagement the term “collateralized” will be defined as where Binance’s *In-Scope Assets* are equal to or greater than the net liability of *In-Scope Assets* as per the *Customer Liability Report* owed to and receivable from customers.

For the purpose of this engagement the customers’ spot, options, margin, futures, funding, loan and earn accounts for bitcoin (“BTC”) and wrapped bitcoin (“BBTC” and “BTCB”) held on the Bitcoin, Ethereum, BNB Chain and Binance Smart Chain blockchains will be defined as the *In-Scope Assets*.

Binance has requested that we perform an AUP engagement on the customers’ cryptocurrency holdings and corresponding liability of funds owed to the customers of Binance as at 23:59:59 Universal Time Coordinate (“UTC”) on the 22nd of November 2022 (“the reporting date”). The management of Binance acknowledge that the AUP are appropriate for the purpose of the engagement and are responsible for the subject matter on which the AUP are performed.

We have conducted the AUP engagement in accordance with the International Standard on Related Services (ISRS) 4400 (Revised), *Agreed-Upon Procedures Engagements*. An AUP engagement involves us performing the procedures that have been agreed with Binance, and reporting the findings, which are the factual results of the AUP performed. We make no representation regarding the appropriateness of the AUP.

This AUP engagement is not an assurance engagement. Accordingly, we do not express an opinion or an assurance conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported.

We have complied with the relevant ethical requirements. For the purpose of this engagement, there are no independence requirements with which we are required to comply.

Our firm applies International Standard on Quality Control (ISQC) 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements*, and accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

PROCEDURES AND FINDINGS

We have performed the procedures described below, which were agreed upon with Binance on the POR report.

	Procedure	Findings
1	Obtain from management the <i>Asset Balance Reports</i> for the <i>In-Scope Assets</i> as at 23:59:59 UTC the 22 nd of November 2022 that list and quantify the nominal balances of all customers' <i>In-Scope Assets</i> held by Binance.	We obtained from management the <i>Asset Balance Reports</i> for the <i>In-Scope Assets</i> as at 23:59:59 UTC the 22 nd of November 2022 that list and quantify the nominal balances of all customers' <i>In-Scope Assets</i> held by Binance.
2	Obtain from management a full listing of all <i>In-Scope Assets</i> ' public keys/addresses that constitutes the nominal balances included in the <i>Asset Balance Reports</i> referred to in procedure 1 as at 23:59:59 UTC on the 22 nd of November 2022.	We obtained from management a full listing of all <i>In-Scope Assets</i> ' public keys/addresses that constitutes the nominal balances included in the <i>Asset Balance Reports</i> referred to in procedure 1 as at 23:59:59 UTC on the 22 nd of November 2022.
3	Independently obtain the nominal balance, as at 23:59:59 UTC on the 22 nd of November 2022, of each of the public keys/addresses obtained as part of procedure 2 from their respective blockchains.	We independently obtained the nominal balance, as at 23:59:59 UTC on the 22 nd of November 2022, of each of the public keys/addresses obtained as part of procedure 2 from their respective blockchains.
4	Compare the total nominal balance of each blockchain's <i>In-Scope Asset</i> obtained in procedure 3 to the <i>Asset Balance Reports</i> obtained in procedure 1 and document any variances greater than 1%.	We compared the total nominal balance of each blockchain's <i>In-Scope Asset</i> obtained in procedure 3 to the <i>Asset Balance Reports</i> obtained in procedure 1 and did not find any variances greater than 1%.
5	For each of the public keys/addresses obtained in procedure 2, perform a combination of; <ul style="list-style-type: none"> - linking extended public key(s) with multiple child public key/address(es); and/or - perform "instructed movement of funds", where management is instructed to move a specific amount from a public key/address on a specific time and obtain the transactional hash to verify the instructed transaction on the respective blockchain; and/or - search the ETH and/or BSC 	For each of the public keys/addresses obtained in procedure 2, we performed a combination ¹ of; <ul style="list-style-type: none"> - linking extended public key(s) with multiple child public key/address(es); and/or - performed "instructed movement of funds", where management was instructed to move a specific amount from a public key/address on a specific time. We obtained the transactional hash to verify the instructed transaction on the respective

¹ One or more of the listed procedures.

	<p>address(es) on Etherscan and BSCScan respectively to ensure that the addresses have been tagged as belonging to Binance.</p> <p>The combination of the above procedures corroborates that Binance has ownership over the private key(s) associated with the public key/addresses referred to in procedure 2 and controls the funds held in the public key/address as at 23:59:59 UTC on the 22nd of November 2022.</p>	<p>blockchain; and/or</p> <ul style="list-style-type: none"> - searched the ETH and/or BSC address(es) on Etherscan and BSCScan respectively to ensure that the addresses have been “tagged” as belonging to Binance. <p>The combination of the above procedures corroborates that Binance has ownership over the verified² public keys/addresses referred to in procedure 2 and controls the funds held in those public keys/addresses as at 23:59:59 UTC on the 22nd of November 2022. The procedure relating to the ETH and BSC addresses that were searched³ were not subjected to “instructed movement of funds”, but only verified on Etherscan and BSCscan as being “tagged”.</p>
6	<p>Obtain and inspect the scripts used by management to extract the <i>Customer Liability Report</i> from the database to ensure the logic and the parameters are designed to extract a complete and accurate listing of client liability balances of the <i>In-Scope Assets</i> as at 23:59:59 UTC on the 22nd of November 2022 while excluding any internal accounts. Observe management access the database and execute the scripts to extract the relevant data from the database. Obtain the data produced from management (i.e. the <i>Customer Liability Report</i>) and perform a row count and sum check on the data set to ensure that the data extracted is complete.</p>	<p>We obtained and inspected the scripts used by management to extract the <i>Customer Liability Report</i>⁴ from the database. Based on management’s explanation of the various parameters we ensured that the logic and the parameters are designed to extract a complete and accurate listing of client liability balances of the <i>In-Scope Assets</i> as at 23:59:59 UTC on the 22nd of November 2022 while excluding any internal accounts. We observed management access the database and execute the scripts to extract the relevant data from the database. We subsequently obtained the data produced from management (i.e. the <i>Customer Liability Report</i>) and performed a row count and sum check on the data set. We did not identify any discrepancies based on the row count and sum check.</p>
7	<p>Inspect the <i>Customer Liability Report</i> for any duplications of user ID’s.</p>	<p>We inspected the <i>Customer Liability Report</i>, obtained in procedure 6 for any duplication of user ID’s. The user ID’s were hashed and truncated to 16 bytes based on the original data set. No duplication of user ID’s were identified in either the truncated or original hashed data sets.</p>

² Excluding the ETH and BSC hot wallets that are listed here <https://www.binance.com/en/blog/community/our-commitment-to-transparency-2895840147147652626>. These hot wallet addresses of the In-Scope Assets were only searched as being “tagged” by Etherscan and BSCscan as documented in the findings report.

³ <https://etherscan.io/> and <https://bscscan.com/> tags addresses based on request and subsequent review. No reference is made to the possession or control of private key(s) as part of this process.

⁴ The customer liability report does not differentiate between native BTC, BTCB and BBTC, therefore they will be assessed interchangeably for the purpose of this engagement.

8	Using the Mazars' Silver Sixpence Merkle Tree Generating tool, aggregate the client data obtained from management in procedure 6 and compute the Merkle Root Hash, which will allow Binance's clients to verify their Merkle Leaf independently and cryptographically as being part of the Merkle Root as at 23:59:59 UTC on the 22 nd of November 2022.	Using the Mazars' Silver Sixpence Merkle Tree Generating tool ⁵ , we aggregated the client data obtained from management in procedure 6 and computed the Merkle Root Hash. The Hash for the Merkle Root based on the information supplied in procedure 6 is b47221413078d47b0d9beb40447786904dae1ed2ff35e365416b5de6cd1089ee.
9	Aggregate the nominal value per asset class on the <i>Asset Balance Reports</i> , which was reconciled to the self-custodied cryptocurrencies listed in procedure 2, and compare these aggregated balances per asset class to the <i>Customer Liability Report</i> . Conclude whether the nominal value of all <i>In-Scope Assets</i> as per the <i>Asset Balance Reports</i> are equal to or greater than the net liability ⁶ of funds owed to and receivable from the customers as per the <i>Customer Liability Report</i> and therefore meets the definition of being collateralized. Calculate the collateralization ratio with the inclusion of <i>In-Scope Assets</i> lent to customers through margin and loans resulting in negative balances on the <i>Customer Liability Report</i> .	We aggregated the nominal value per asset class on the <i>Asset Balance Reports</i> , which was compared to the self-custodied cryptocurrencies listed in procedure 2, and compared these aggregated balances per asset class to the <i>Customer Liability Report</i> . We found that Binance was 97% collateralized without taking into account the <i>Out-Of-Scope Assets</i> pledged by customers as collateral for the <i>In-Scope-Assets</i> lent through the margin and loans service offering resulting in negative balances on the <i>Customer Liability Report</i> . ⁷ With the inclusion of <i>In-Scope Assets</i> lent to customers through margin and loans which are over-collateralized by <i>Out-Of-Scope Assets</i> , we found that Binance was 101% collateralized.
10	For accounts with negative <i>In-Scope Asset</i> balances identified in procedure 9; obtain from management a <i>Collateralized Listing</i> showing the USD value of all <i>In-Scope Assets</i> and <i>Out-Of-Scope Assets</i> with negative balances as well as the USD value of all <i>In-Scope Assets</i> and <i>Out-Of-Scope Assets</i> held as collateral to ensure the latter's USD value exceeds the USD value of the negative balances in aggregate.	In relation to the negative <i>In-Scope Asset</i> balances identified in procedure 9; we obtained from management a <i>Collateralized Listing</i> showing (1) the USD value of all <i>In-Scope Assets</i> with negative balances, referred to in procedure 9, and all <i>Out-Of-Scope Assets</i> with negative balances, as well as (2) the USD value of all <i>In-Scope Assets</i> and <i>Out-Of-Scope Assets</i> held as collateral, to ensure the latter's USD value exceeds the USD value of the negative balances in aggregate.



MAZARS
Partner: Wiehann Olivier
7 December 2022
South Africa

⁵ The Silver Sixpence Merkle Tree Generating tool forms part of Mazars' Veritas service solution whereby we aim to bring trust and transparency to all stakeholders in the industry. Customers of Binance can independently verify their account being part of the attestation on the Mazars Veritas website <https://veritas.mazars.com/binance/>. The source code for the Merkle Tree Verification can be found here <https://github.com/silversixpence-crypto/merkle-tree-verify>

⁶ Binance Management Comment – "Binance's margin and loan products are always over-collateralized and subject to additional risk controls (such as auto liquidation). These products ONLY utilize funds from customers actively using Binance Earn products such as savings whose terms permit this".

⁷ <https://www.binance.com/en/blog/markets/how-to-borrow-crypto-on-binance-margin-and-loans-421499824684903083>

APPENDIX

The following addresses were tested as part of this engagement:

BNB

- bnb1fnd0k5l4p3ck2j9x9dp36chk059w977pszdgdz
- bnb1lsmt5a8vqqu5fwslx8pyyemgjt4y6ugj308t
- bnb1u2agwjat20494fmc6jnuau0ls937cfjn4pjwtn

BSC

- 0x8894e0a0c962cb723c1976a4421c95949be2d4e3
- 0xe2fc31f816a9b94326492132018c3aecc4a93ae1
- 0xf977814e90da44bfa03b6295a0616a897441acec
- 0x5a52e96bacdabb82fd05763e25335261b270efcb

BTC

- bc1qm34lsc65zpw79lxes69zkqmk6ee3ewf0j77s3h
- 34HpHYiyQwg69gFmCq2BGHjF1DZnZnBeBP
- 34xp4vRoCGJym3xR7yCVPFHoCNxv4Twseo
- 395vnFScKQ1ay695C6v7gf89UzoFpx3WuJ
- 3AeUiDpPPUrUBS377584sFCpx8KLfpX9Ry
- 3FHNBLobJnbCTFTVakh5TXmEneyf5PT61B
- 3JFJPpH8Chwo7CDbyYQ4XcfgcjEP1FGRMJ
- 3LQUu4v9z6KNch71j7kbj8GPeAGUo1FW6a
- 3M219KR5vEneNb47ewrPfWyb5jQ2DjxRP6

ETH

- 0x21a31ee1afc51d94c2efccaa2092ad1028285549
- 0x28c6c06298d514db089934071355e5743bf21d60
- 0xdfd5293d8e347dfe59e90efd55b2956a1343963d
- 0xf977814e90da44bfa03b6295a0616a897441acec

The block heights of the respective chains on the reporting date were as follows:

Blockchain	Block Height
BNB	280017714
BSC	23288794
BTC	764327
ETH	16028978

Report details	In-Scope Assets (Notional Value)
Customer Liability Report Balance	597,602.29
Net liability balance (excluding <i>In-Scope Assets</i> lent to customers)	575,742.42
Asset Balance Report	582,485.93