



Hedera™ Hashgraph

Certificate of Blockchain Proof

Powered by **Proven^{DB}**

hh_tokenization-whitepaper_v1_20201207.pdf

Hedera Hashgraph (email user: contact@hedera.com)

This certificate constitutes proof that a document has been anchored to a Blockchain using the Hedera Hashgraph Protocol on [Mon, 21 Dec 2020 12:52:56 GMT](#) thereby proving that the document existed in its current form on the date at which the Blockchain entry was created.

You can use this proof to attest that:

- (a) the document has not been altered in any way.
- (b) the document existed in its current form on the specified date.



An online version of this proof can be found at:

<https://app.provodb.com/app/document/share/bff45c02c29c0aa0a17e68c9f058e3d46a456ff5ea510bee92c845cd98c9d760fa1882a12d2f460028476b7ca3e827cdc75068f0bfc195afb5b540c5cc5b5c73842a7c25fb736c46693c84f9c146b34d2fe626a1bacb35651fd3a93c212494080c13309d88a032ba17ae1b1fc8458f1da8918307f8330c8add38df9c967bb5e2a2d1c0de22de975a9959de8b8a04ba/compliance>



Details of the document being proved

The document was uploaded by Hedera Hashgraph (email user: contact@hedera.com) at [Mon, 21 Dec 2020 12:52:53 GMT](#)

The document name when hashed was "hh_tokenization-whitepaper_v1_20201207.pdf"

You can view a copy of this document [here](#)
(permissions may be required to view the document)

The cryptographic hash of the document is:
`1d4b15414abd75adaeded11d7b91f8be9cf72d4d803a6850cf4676b503222d41`

See [Schedule 1](#) for details of the hashing algorithm employed.

Blockchain proof details

The document hash was included within the [Hedera Hashgraph](#) proof at <https://explorer.kabuto.sh/mainnet/transaction/1e0b076a3f05a64f5591a7397a0563a2417aad93f701a28f9eec7c2ae3b3360441657542eeb36f40081fa0bf793513b9>

See [Schedule 2](#) for a detailed cryptographic proof.

The Hedera Hashgraph proof was anchored to the Blockchain in transaction [1e0b076a3f05a64f5591a7397a0563a2417aad93f701a28f9eec7c2ae3b3360441657542eeb36f40081fa0bf793513b9](https://explorer.kabuto.sh/mainnet/transaction/1e0b076a3f05a64f5591a7397a0563a2417aad93f701a28f9eec7c2ae3b3360441657542eeb36f40081fa0bf793513b9) at: [Mon, 21 Dec 2020 12:52:56 GMT](#)

Summary

The document `hh_tokenization-whitepaper_v1_20201207.pdf` with hash value `1d4b15414abd75adaeded11d7b91f8be9cf72d4d803a6850cf4676b503222d41` was anchored to the Hedera Hashgraph Blockchain by Hedera Hashgraph (email user: contact@hedera.com) at: [Mon, 21 Dec 2020 12:52:56 GMT](#). Providing that the document continues to hash to that value, you can be certain that the document existed in its current form on or before that date.

Schedule 1: Document hashing

The document hash of `1d4b15414abd75adaeded11d7b91f8be9cf72d4d803a6850cf4676b503222d41` was obtained by performing a [SHA-2 256 bit](#) hash on the document [here](#) (permission may be required to view this document).

The hash was calculated on the document and its metadata as stored in the ProvenDB system.

You can download a copy of the document and its metadata (permissions required) [here](#). You can independently validate the document proof by using the open source validation tool at <https://app.provencdb.com/homepage/downloads>.

Schedule 2: Hedera Hashgraph proof

The Hedera Hashgraph proof uses a Trie structure for linking data to the public Blockchain. It aggregates multiple hash values into a single hash value which is then placed on the Blockchain. The following Hedera Hashgraph proof proves that the hash value of

`1d4b15414abd75adaeded11d7b91f8be9cf72d4d803a6850cf4676b503222d41`

is associated with the root hash placed on the Hedera Hashgraph Blockchain in transaction

<https://explorer.kabuto.sh/mainnet/transaction/1e0b076a3f05a64f5591a7397a0563a2417aad93f701a28f9eec7c2ae3b3360441657542eeb36f40081fa0bf793513b9>

This proof can be downloaded (permissions required) [here](#)

Below is a binary representation of the Blockchain proof

```
eJy0VL2uG1QM5imYGVjTHNvH9jmdrsQrMLEEn2ObRLpNoiQtdLywsLZvUFRUghATYuQ9lvEwKL2loopYkFht
+fPf933f/7K243q18dXcHeL8qVtBmjwXs3VeAERfGGEu0NACfcwZ9fe3JcfH49Hmdlr7ypWdfsOCZQG4QPgc8CHjQ5Yv3oyDbec6js+//fHWrtz
+uvex8t1c3Sde7vbHPz/6+07F4XwDs9am1nu1DrUmSwoyuxJWdOkRoygxUcTg7KFcdPY5E7nE5Hr3w27/
+ri2BbLcvbg939TBpli1VR6tAHRD7VFGAHC6i4EbJ7UW8Gh3sulbRj0Fs7hHwlezcM0NiqEk3Pan0Gu+vIEcm1F+rViWCym2i04qLcMGQKjCZmdjU
h4mXJrkMsmUPQ0XuNau6t9UIAzOJCPmzNYuZHU0KYEODGlcTlrUClpauXK0MiQTTYMMkmRUjm5hgJkVWVTGKIKdnCgyYFwB1goG2rxDJxmZ3
LihF63S66jsImEBxAGDRHH65dwAnllwvUKUKi0Vrp7miYNUyijKqUV8Cl6G3dL4w7q0EGLs5YuNCsPRizXgCq9zzmwEkzE5oSGw1OkqPbsULr5EGx0
YdNorFRwEiViN8kG1ysbZKnC1gYDTrFm0Qi8VyStQaA9cgzqKYhDGpQ
+o5Y0yiQYev1IQFXgMZrwrMOaCRtmdU1ptc8p0v1CR9cEbcBhUgdKS8klvuZhwldlylZJbFUyEaodK8A1UsQmAzBzNkax+hESOIzB6Vl+/Ap73R5/
uQizHV4HGz1yDbbbZxWF4XuDv+Q6r071/ex47PvXj0+bl7Pzs/Xp9P++HC5vE882B92u7RxGw82u+WTOGzy6fJD2CVEGUXFKaub1GTuYEprbCQY
QU1806pBQxb9oipEy1oEEmpFYSVK0ZcaF1LaZBWRmonBhr91enpPI50u/3p3QlbP3/5fzd9czN321N8c/rj74N8TRt/
sDt8tZxr22z3u832tHxCb4f7+bP3oVcXNz3fgNcBXXHacGVzCw8HcB0dso3oMxW9eitk0rjMrKlyuBAieoX3Pr7d+X/08Uvlv/n4XwEAAP//OBH39w==
```

Schedule 3: List of printable links in the document

Document being proven:

<https://app.provencdb.com/app/document/share/84ac9ac27e6df86b2f0e7b49085cf2913e9bd4ce46287e7f50a106526a3e73d601287f4252ab94f5bd79e4314d8a0320a69e41531d321a2b22d8d281200b2cd050dec6b795d9e2f739ac7be14b17dca10f62dd114395ffc36213f8e68f084c5b94b987ebadb173ee40dd767adede8e6fd1bddd5dcb617fd59bb1b1f283970bd381a9085d6d164fe62caab6719dd13/compliance>

Hedera Hashgraph

<https://www.hedera.com/>

Blockchain transaction:

[1e0b076a3f05a64f5591a7397a0563a2417aad93f701a28f9eec7c2ae3b3360441657542eeb36f40081fa0bf793513b9](https://app.provencdb.com/app/transaction/1e0b076a3f05a64f5591a7397a0563a2417aad93f701a28f9eec7c2ae3b3360441657542eeb36f40081fa0bf793513b9)

Open source validation tool:

<https://app.provencdb.com/homepage/downloads>