



Proven^{DB}

ProvenDB database server and Proofable API Service Pricing



ProvenDB Pricing

About this document

This document provides indicative pricings for ProvenDB software. Pricing is subject to revision and change subject to the general conditions outlined in our EULA, which can be found at <https://provendb.com/homepage/licence/>. Unless otherwise indicated prices are in US Dollars (USD).

About ProvenDB

ProvenDB – is a blockchain-enabled database service that offers Blockchain enforced guaranteed proof of data integrity and provenance within a fully functional and broadly compatible database service¹.

For more information about ProvenDB, see <https://provendb.readme.io/docs/home>.

ProvenDB Compliance Vault is a turn-key application built on ProvenDB that provides a tamper-resistant digital store for critical compliance information. The ownership and creation date of information stored in ProvenDB Compliance Vault can be definitively proven by stringent industry-standard cryptography. With ProvenDB Compliance Vault, you can be certain that your compliance data will satisfy the most rigorous compliance audit.

For more information about ProvenDB Compliance vault see <https://rebrand.ly/8ibu4cd>.

About Proofable

Proofable is a framework for certifying digital assets to public Blockchains. With Proofable, you can anchor millions of digital assets quickly and economically in a single transaction. Proofable certificates can be used to detect tampering or to prove the integrity and origin of any digital assets such as legal documents, financial instruments, intellectual property, and more.

Unlike ProvenDB, Proofable does not persistently store user data. Proofable is suitable when you are anchoring so much data that storing to a database is inappropriate, or when your persistent data is already in a preferred database store.

ProvenDB Deployment

¹ ProvenDB is fully compatible with MongoDB: the world's most popular non-relational Database Server

You can use ProvenDB on-premise or as a cloud service. Additionally, the service may be embedded within an independently installable application.

ProvenDB Cloud Service

The ProvenDB Cloud Service is the easiest and, operationally, the cheapest deployment option. Data resides in a fully managed cloud database that supports industry-standard encryption and security measures.

The Cloud service is a fully managed service accessible through monthly subscription pricing. The ultimate storage of documents occurs in a MongoDB Atlas database which provides high-availability, backup and data encryption. Blockchain proofs are written to the public Bitcoin or Ethereum Blockchains. The ProvenDB management infrastructure runs on Microsoft Azure.

ProvenDB On-Premise

An on-premise deployment supports organizations whose security procedures prohibit the storage of sensitive information in the cloud. In this scenario, all elements of the ProvenDB database and/or the Compliance Vault are installed within the customer's data centre. The aggregated digital signatures are the only transactions that leave the customer's data centre since these signatures must be anchored on a public Blockchain. However, these signatures are 256-bit numbers which cannot be converted to any meaningful data and which contain no identifiable information (not even the source of the transaction can be deduced from the signature).

ProvenDB is available as a downloadable package that can be run within a Docker or Kubernetes environment. The Docker package is suitable for evaluation and development purposes, while the Kubernetes environment provides fault-tolerance and load balancing and is recommended for production deployments.

ProvenDB Compliance Vault can also be run outside of the Docker, or Kubernetes containerized environments, though professional services will be required to assist with configuration and installation.

ProvenDB Embedded Deployments

ProvenDB may be embedded within a custom application or commercial software offering. In this mode, ProvenDB provides a MongoDB-compatible interface that can be used with most popular application development frameworks such as React, Angular, Spring, .Net, etc.

This mode is suitable for Independent Software Vendors who wish to develop applications that leverage ProvenDB's data integrity features but who do not wish to develop their own sophisticated Blockchain database.

Blockchain options

ProvenDB and Proofable use *Merkle Trees* and *Trie Prefix Trees* to anchor critical information to a Blockchain. The cryptographic techniques are beyond the scope of this discussion; however, the advantages are easy to articulate:

- Very large numbers of documents or data elements – thousands or millions – can be proved on a Blockchain with a single transaction, providing a cost-effective way of leveraging otherwise expensive public Blockchains.
- Only a 256-bit hash value need be written to the Blockchain. This value cannot be decompiled into any meaningful data value, so although the proof of data integrity is stored on a public and highly secure Blockchain, actual data is safely stored off-chain.

By default, ProvenDB and Proofable write blockchain proofs to Bitcoin, Hedera or Ethereum public Blockchains. However, ProvenDB can support any Ethereum compatible Blockchain, including Enterprise Ethereum private chains, the JP Morgan Quorum chain and many more. We also support private HyperLedger blockchains.

Pricing: ProvenDB Cloud Service

	Developer	Business	Enterprise
Base Price (USD)	Free	\$150/month	\$0.15*CPU/hour
Storage Limit	100MB	10GB	\$0.002*GB/hour
Additional 10GB		\$10/month	As above
Data transfer limits	100MB/month	10GB/month	\$0.75 per GB in/out
Additional data transfer		\$0.75 per GB in/out	
Database Service	Shared	Shared (multi-tenant Atlas DB)	Dedicated database and infrastructure
Blockchains	Bitcoin TestNet Ethereum MainNet Hedera MainNet	Bitcoin Ethereum Hedera	Bitcoin via Chainpoint Bitcoin direct to MainNet Ethereum MainNet Private Blockchains
Blockchain Transaction Limits	Bitcoin testnet proofs every 1 minute Ethereum MainNet Proofs every 1 hour Hedera mainnet proofs every 3s Additional Ethereum Proofs at USD	Bitcoin mainnet proofs every hour Ethereum MainNet Proofs every 10 minutes Hedera mainnet proofs every 3s Additional Ethereum Proofs	As for business account, with no-charge private blockchain proofs

	50 cents per proof ² .	at USD 50 cents per proof ³ .	
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² Note that an Ethereum proof can prove any number of documents in a single transaction. The ultimate price will depend on the number of additional proofs requested, not the number of documents proved.

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Pricing: ProvenDB On-Premise

	Standard	Enterprise	Custom
Price (USD)	\$5,000/year	\$10,000/year	Custom
CPU limits	4 cores ⁴	>4 cores	
Storage Limit	500GB	>500GB	
White labelling	No	No	Yes
Document Services	Yes	Yes	Yes
Blockchain Support	Bitcoin Ethereum MainNet	Bitcoin Ethereum MainNet	Bitcoin Ethereum MainNet Private Blockchain
Blockchain Transaction Limits	Chainpoint Proofs on demand ProvenDB managed Ethereum MainNet Proofs every 10 minutes ⁵ . Additional ProvenDB Ethereum Proofs at USD 50 cents per proof. User Supplied wallet proofs on demand ⁶ .	Chainpoint Proofs on demand ProvenDB managed Ethereum MainNet Proofs every 10 minutes Additional ProvenDB Ethereum Proofs at USD 50 cents per proof. User Supplied wallet proofs on demand.	Custom
MongoDB license	MongoDB Community Edition	MongoDB Community Edition	MongoDB Community Edition MongoDB Enterprise License ⁷
Deployment Environment	Docker/ Kubernetes	Docker/ Kubernetes	Docker/ Kubernetes Dedicated server

⁴ If running in a containerized or virtualized environment, the number of cores is the number of cores made available across all containers

⁵ These proofs are written to the Ethereum MainNet by ProvenDB infrastructure running in the ProvenDB cloud

⁶ These proofs are written to directly to the Ethereum MainNet using credentials supplied by the user. ProvenDB infrastructure is not involved.

⁷ May require a license from MongoDB corporation at additional expense. MongoDB Enterprise provides enhanced encryption, security and backup capabilities.

Pricing for ProvenDB Embedded deployment

Pricing for an embedded deployment of ProvenDB is variable. Typically, a per-unit price will be dependent upon the following factors:

- Price of the deployed software product
- Blockchain model used. In particular, whether if ProvenDB cloud infrastructure is used to perform Blockchain transactions or whether these are performed using user-supplied credentials.
- Data storage volumes and typical transactional rates.



Pricing: Proofable API Service

Pricing the Proofable service is based on three limits:

- The number of “anchor” API calls per hour. These calls anchor digital assets to a blockchain. Each call can anchor an unlimited number of objects, subject to the limits defined in the next paragraph.
- The number of anchored objects per hour. An anchor API call can anchor one or one million objects; This limit determines the maximum number of objects independently of API call rates.
- The size of anchored proof data created by the API calls. The proof data contains the hierarchical data structure that anchors individual elements in a proof to a single blockchain entry. If the digital assets are hashed, then a 1GB proof structure can anchor about 9 million assets. If digital assets are stored in the proof data directly, then the size will be proportional to the size of the data being anchored.

	Developer	Business	Enterprise
Base Price (USD)	Free	\$150/month	\$150/month, plus \$4.50 per GB of anchor proof data ⁸ .
Max anchor Calls/hour⁹	500	16,000	Unlimited
Maximum anchored objects/hour¹⁰	500,000	16 million	Unlimited
Total anchor data size (per month)¹¹	1 GB	32GB	\$4.50/GB above 32GB
Blockchains	Bitcoin TestNet Ethereum MainNet Hedera MainNet	Bitcoin Mainnet Ethereum Mainnet Hedera Mainnet	Bitcoin Mainnet Ethereum Mainnet Hedera Mainnet

⁸ 1GB of anchor data is capable of anchoring about 9 million hashed objects. However, if objects are not hashed, then anchor data size will be proportional to the size of the anchored objects.

⁹ This applies only to API calls that anchor data to a blockchain. All other API calls are unlimited.

¹⁰ Note that a single anchor API call can anchor potentially millions of objects.

¹¹ 1GB of anchor data is capable of anchoring about 9 million hashed objects. However, if objects are not hashed, then anchor data size will be proportional to the size of the anchored objects.

Support

ProvenDB offers the following support and Professional Services:

- Training and installation services at a rate of \$USD200/hour
- 24/7 web-based support
- On-call support as negotiated





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