



# ENTERPRISE GRADE TRANSACTIONS ON THE BLOCKCHAIN

**VERSION 1.0**



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## **VISION**

TRAXALT will provide decentralized tools built on the STELLAR blockchain.

TRAXALT is built for global organizations, committed to the transparency of transactions on a stable, predictable public ledger infrastructure.

## **INTRODUCTION**

Large business enterprises make global payments to other businesses, their employees, contractors and affiliates. They spend an enormous amount of resources tracking these payments and doing middle office accounting, analyzing and reporting. Important business data is often lost or not collected due to the size of these organizations. Large companies often cannot track where payments are going or what they are made for and have no idea how to reduce the operational costs.

Problems with data collection, reporting and analytics in digital record-keeping are particularly important in businesses involved in licensed financial services where data can make a significant difference to the company's bottom line. Nonetheless, other industries can benefit from tracking data in a scalable blockchain solution.

In the first two stages of TRAXALT Platform development: TRAXALT proposes a solution for handling internal transactions for businesses that aim to increase transparency. In these stages, TRAXALT TOKEN on Stellar blockchain will be utilized along with TRAXALT LEDGER to allow for arbitrary data identification, hashing, and timestamping on the blockchain. Once any particular data is stored on the blockchain using TRAXALT Protocol, it can be verified, measured, analyzed and reported without relying on any trusted third party.

## THE PROBLEM

Current blockchain solutions on Bitcoin and Ethereum suffer the same problems that the core protocols experience without addressing these issues such as:

- High operational costs
- Inefficient
- Mining centralization
- Invisible
- Slow
- Unscalable

Broadcasting transactions to the Bitcoin and Ethereum blockchains is becoming increasingly more expensive. As more users and companies adopt these protocols, users' transactions will begin to compete with each other and increase the usage fees.

Transaction throughput is the most common criticism of blockchain technology. Enterprise applications must have massive transaction throughput. Most of the on chain solutions are currently un-scalable to accommodate institutional grade throughput.

## TECHNICAL DESIGN OVERVIEW AND PHILOSOPHY

THE  TRAXALT PROTOCOL is made up several components:

### TRAXALT TOKEN | TRAXALT LEDGER

TRAXALT PROTOCOL is built on top of the STELLAR blockchain, one of the most widely-used blockchain platforms at this time.

Benefits to Traxalt's protocol users utilizing the STELLAR blockchain include:

- Low operational costs
- Speed in settlement
- Reduction of risk
- Transparency
- Auditability
- Immutability
- Enterprise scalability

Businesses like to keep their operational costs low, but more importantly, they expect and rely upon predictability. Thus, enterprise blockchain application, TRAXALT PROTOCOL is run on a platform with predictable and stable transaction fees. TRAXALT PROTOCOL will operate with small and predictable fees, where necessary, to fund operations and prevent spam to the network.

While private chains may be able to scale at a faster rate, they are unable to give trust and transparency where needed. TRAXALT provides a public chain solution that makes it easy to share information hashed to the blockchain with the public or with authorized participants as the particular enterprise sees fit.

## TRAXALT PROTOCOLS

The TRAXALT Platform includes a series of protocols that define standards **for hashing data** to the public blockchain, and **reporting and analyzing** such data.

## TRAXALT GLOBAL PAYMENT NETWORK

TRAXALT TOKEN delivers a single global payment experience for worldwide industries, small and large. Rather than centralized private networks, TRAXALT TOKEN is a single, global network of large and small institutions and individuals that send and receive payments via TRAXALT's distributed financial technology.

TRAXALT PROTOCOL's users benefit from the high volume of throughput, standardized distributed ledger technology and rich data attachments with each payment. TRAXALT PROTOCOL's financial technology outperforms today's centralized infrastructure by **driving down costs, increasing processing speeds and delivering complete visibility into payment fees, timing and delivery.**

**Potential users who could benefit from using TRAXALT Token as a payment network:**

- Banks
- Payment providers
- Platform businesses
- International businesses
- Corporate treasury
- Consumers

## TRAXALT TOKEN

Traxalt Token (TXT) is a digital currency and application token which operates the TRAXALT PROTOCOL.

TXT is created as a token intended for use as a standardized global universal currency on the STELLAR blockchain.

TXT will allow for **payments** for use of TRAXALT Network and TRAXALT Ledger.

TXT will also be used to **secure** the network from spam and malicious behavior.

TXT will be **required** as Registration Fees for verified entities using TRAXALT Protocol and TRAXALT Ledger, and for fees for utilizing TRAXALT unique data hashing protocol as well as the analytics tools of TRAXALT Ledger.

Traxalt tokens may also be used to incentivize participants in the Traxalt platform ecosystem. Traxalt Tokens may be used to reward users, developers, and other participants to perform actions and services that benefit the entire ecosystem.

## TRAXALT LEDGER

TRAXALT transactions can be perfectly accounted for and audited on the blockchain using TRAXALT LEDGER. All transactions will be broadcast to a public blockchain and can be segregated by enterprise necessity on the TRAXALT LEDGER.

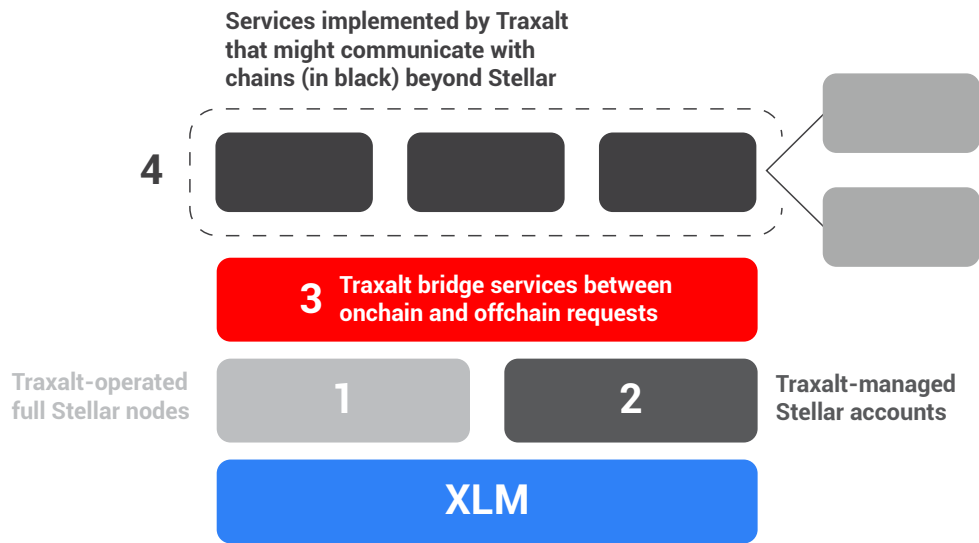
TRAXALT LEDGER is a Block Explorer that can be customized for registered users of TRAXALT PROTOCOL.

TRAXALT LEDGER is intended for use for hashing, broadcasting to the blockchain, analyzing and reporting of the following types of use cases:

- Real world data
- Transaction data
- Accounting and auditing
- Ownership
- Possession
- Authority

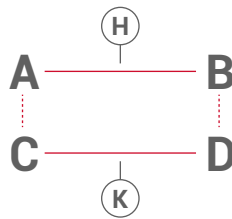


# PLATFORM COMPONENTS INTERACTION



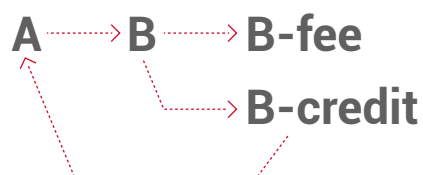
## SUPPORTING INFRASTRUCTURE

The Traxalt team envisions a future where the entire Platform is decentralized. In the meantime, there are several components of the underlying infrastructure which are centralized. It is the Traxalt team's intention, along with third-party teams, to create the appropriate solutions to make the Platform completely decentralized.



**A—B** happens on chain. This is used to indicate that a Stellar account A, previously configured to handle TXT, intends to use services provided by Traxalt. The source account A sends a TXT transaction H to account B that belongs to Traxalt.

This transaction H contains a certain amount of TXT to pay for services, part of which is taken as a service fee and, depending on the request, another part is reserved as credit that is sent back to A as the service used. Therefore the general flow of funds is



Account B-fee can be reused for many requests, but account B-credit is created on demand to uniquely track usage and payments back to the source A. This model of paying in advance and receiving upon usage is used to reduce the number of payments required, create a rate limit by a simplified stake model, and also to facilitate the usage of the system. The payback is not expected to be sent right after each action that results in a payback, instead it's settled once a threshold is met. The source account A can send lower or higher amounts depending on its expectations of service usage.

Transaction H also contains a memo entry which is a SHA256 of the data that needs to be transmitted for the respective call. A hash of the data is used because the memo field is limited to 32 bytes, and storing it on chain with a transaction signed by A becomes a proof of request which is later checked by Traxalt when performing services. The data is assumed to be arbitrary and checked at a different moment, described in the next section.

**C—D** happens off chain as a consequence of an earlier on chain request.

The resulting transaction K contains a signature from account A using the same method used by Stellar transactions but without the requirement of sequential nonces. The EdDSA signing takes the raw data, the txid of the transaction H, the current timestamp, and an unique id within a timeframe specific to the implementation. The non- sequential nonce are used to allow parallel requests without requiring synchronization, as nonces can be generated at random. The Traxalt service enforces fresh requests, uniqueness, and overall validity of the request based on the data format and existing credit on chain.

The request resulting from transaction K is stored only internally, but later the service might be extended to store the root of merkle trees on chain.



## SUMMARY

With the emergence of the blockchain platforms there has been a significant need to build an ecosystem around scalable solutions for enterprise grade transactions. TRAXALT is launching a protocol to allow high throughput transactions to be hashed and anchored to the blockchain, and then reported and analyzed for business and commercial use.

The TRAXALT TOKEN (TXT) is launched as a utility token that may have multiple uses. TXT will be used, created and utilized to ensure platform security, data validity, engagement, and growth. Additionally, it may be used as a unit of exchange between market participants.

TRAXALT is focused on bringing practical decentralized tools for various business and individual use cases. We're excited by the opportunity to lower fees, increase throughput, and free business and transaction data to the blockchain.

We are building a platform that invites interested market participants including developers, entrepreneurs, businesses and early believers to build this technology and community with us, altogether working to create the financial tools of the future. We hope you'll join us on this exciting adventure.



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