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 - (iii) rights, options or derivatives in respect of such debentures, stocks or shares;
 - (iv) rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss;
 - (v) units in a collective investment scheme;
 - (vi) units in a business trust;
 - (vii) derivatives of units in a business trust;
 - (viii) any other security or class of securities; or
 - (ix) any type of investment
- H. you are fully aware of and understand that you are not eligible to purchase any NFTs or access the Current Information if you are a citizen, national, resident (tax or otherwise) of an internationally sanctioned country.
- I. you have a basic degree of understanding of the operation, functionality, usage, storage, transmission mechanisms and other material characteristics of cryptocurrencies, blockchain-based software systems, cryptocurrency wallets or other related NFT storage mechanisms, blockchain technology and smart contract technology;
- J. you are fully aware and understand, there are risks associated with: (A) TKTZ and its business and operations; (B) the NFTs; (C) the NFT Purchase; (D) storage of the NFTs, and (E) relying or acting on all or any part of the Current Information;
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- G. changes in preferences of customers of TKTZ;
- H. changes in competitive conditions under which TKTZ operates, and the ability of TKTZ to compete under such conditions;
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TKTZ | WHITE PAPER





EXECUTIVE SUMMARY

We've seen the emergence of globally recognized brands in the NFT space. Their growth has been accelerated by the crowd-funded mint model, the macro socio-economic effects of a global pandemic, and the passionate connection individuals have felt within Web3 while feeling profoundly isolated in their real lives.

This perfect storm has led to a paradigm shift, empowering certain visionaries with out-of-the-box ideas.

As global consciousness begins to transition to Web3 and a redefinition of ownership of our finance, data, and digital assets is cemented, big companies who have typically been overbearing about ownership rights will struggle to adapt.

This leaves the door open for a new kind of company - a Web3-native company - to share its growth with its members and pursue a new kind of company growth.

"Ultimate choice, maximum freedom";

TKTZ is a trading system and platform for NFT-based flight tickets, secured by blockchain technology.

Nowadays, flight tickets and bookings are managed by airlines and agencies alone, and ticket changes can only be done under their restrictions and rules.

TKTZ allows EVERYONE to trade their tickets, enabling fair trade and assuring that the ticket issuer enjoys the fees associated with ANY TRANSACTION, no matter how many times it changed hands!

TKTZ is the first true marketplace for flight tickets.



INTRODUCTION

TKTZ takes the world of airline tickets forward. We are changing the world of aviation and the world of aviation's consumers.

TKTZ is a trading platform and arena for NFT-based flight tickets verified by blockchain technology.

This is a new world where tickets can be exchanged in the B2B, B2C and C2C paradigm.

Today, the world of airline tickets is run by airlines and by travel agents and agencies alone. Ticket change is done on their terms and usually involves additional fees as well.

4.5 billion people fly every year. The volume of passengers is constantly rising.
20-30% of flight tickets globally are canceled or have their dates changed by the buyer.
Any change or cancellation, and even the transfer of the ticket to another person's name, involves a fee paid to the airlines.

TKTZ is the world's first marketplace of its kind for airline tickets!

The Marketplace will allow anyone to trade and exchange their tickets, while trading fairly and securely, with both the seller and the issuer profiting from each transaction. No matter how many repeated transactions were made on the same ticket.

The world of aviation post COVID is starting to emerge. The tourism industry is strengthening. Restrictions are lifted in most countries and people around the world are traveling once again. TKTZ invites you to take an active part in the world of aviation and enjoy complete freedom by trading the airline tickets that you own.

TKTZ is based on four key values that we believe in, and they are the four legs for establishing the platform:

Freedom - TKTZ allows its users the freedom to choose without risking sanctions, it is possible to book a flight and avoid the risk of of not being able to cancel the flight or change its date. The ultimate freedom of choice allows customers to maximize the value of their sale in the marketplace at no additional fees.

Freedom to trade with everyone without restrictions, at any moment, while forming voluntary agreements between buyer and seller - with complete confidence.



Choice - TKTZ fosters choice. The choice to change and then change again and again. You have the right to make mistakes and change your choices, and you have the right to make informed decisions and reduce risks. The choice of being a member of a community that respects all players and their right to transparency, authenticity and safe trade.

Property / Ownership - TKTZ believes that ownership is unlimited. Ownership enables fair trade. We believe in free initiative that allows for all partners to gain and enjoy exercising their rights. All ownership is transferable.

Free Trade - The essence of free trade is based on fairness, proper disclosure, validity, and certainty. We believe in the power of consumers. Trading airline tickets is a revolutionary development that allows all partners to create a system of free and fair trade for the benefit of all players. Attempts to block free trade and open market also block the consumer's freedom of choice.



OUR NFT COLLECTION - TKTZ PREMIUM CLUB

TKTZ is going to launch "TKTZ Premium Club" - an NFT collection of collectibles that will include 10K NFTs.

This is your chance to take an active part in the TKTZ revolution, the purpose of the collection is to create our premium club for holders only, with royalties at a rate of 7%.

Our NFT will grant holders access to the TKTZ Premium Club and act as a membership certificate.

Every club member will enjoy a discount of 15% - 25% (based on a staking mechanism and rarity) on all platform tickets.

The premium club is TKTZ's highest tier club, and it will never include more than 10K members. With TKTZ Premium, you do more than travel - you go places. Get miles when you fly and turn them into your next trip.

TKTZ staking – TKTZ NFTs can be staked, starting from day 1 of the collection. The longer you stake your NFT the more discount percentage and benefits holders are granted as premium members. All memberships start at 15% discount and after staking can reach a maximum of 20%. Only the rarest NFTs will be able to reach 25%.

The discount is only one of the perks of being a member: members will have the opportunity to try new features before anyone else, get rewards when reaching purchase milestones on the platform, and benefit from future business partnerships.

We are planning to create more membership clubs for our users in the future, which will offer additional benefits to be announced later on.

On top of the holders' access to the Premium club, each member can participate in games to win flight tickets - use them or sell them.

Moreover, holders will be partners in the design of the platform and its progress and will help us on the way to realizing the free trade revolution in airline tickets.

Of course, there will be more surprises for our club members that we are currently keeping secret.



PROBLEM DEFINITION

The world of flight tickets has not changed significantly in the last 50 years despite great technological advances.

In order to change, transfer, or cancel a flight ticket one has to contact the airline or travel agency by phone, a task that makes it difficult for both the customer and the business.

Since COVID, Airlines customer service is closed (or even non-existent), with some companies even charging for the call itself.

This makes it very difficult for the airlines to have an efficient and cost-effective customer service department, certainly after the huge losses during COVID years. The airlines are trying to cut expenses and maximize revenue, and customer service, being perceived as a cost center, is affected, with the big losers being us, the customers.

The situation today is as follows:

Between 20 and 30 percent of flight tickets are changed or canceled, for each of which an average of \$25 fee is charged by the airlines or agencies, assuming the customer has managed to reach them efficiently.

In the case of low-cost airlines, canceling or changing a ticket is an almost impossible task that usually ends in the customer losing the full amount paid for the flight ticket. Moreover, in the post COVID and high inflationary environment of these days, consumers do not buy tickets for travels far in the future, because they may not be able to fly, and they would then have to contact the airline or travel agency and pay a fee or lose the ticket.

THE SOLUTION

In the current status, any change in a flight ticket involves tedious red tape and fees. TKTZ aims to put an end to it.

With TKTZ you are free to do with your ticket as you please, transfer it to another person or sell it to another person.

On our platform users can purchase a ticket directly from TKTZ, which actually makes us a travel agent, or add to the platform a ticket purchased through an external channel. We hold the know-how and the infrastructure to verify each ticket and its reliability so that the ticket is valid and usable. There will be no fake tickets on the platform! We want to put an end to endless waiting for customer service, paying fees for every ticket change, and worrying about future flights.

We have been granted with access to all airlines' databases, allowing us to make tickets ownership changes.

TKTZ's platform basically converts each flight ticket into an NFT, so that we can be sure that each ticket is unique and there are no duplicates, and the fees paid to the ticket issuers can be paid transparently and automatically.

The platform works as follows:

Once a person purchases a ticket through the platform, the ticket is associated with their designated wallet and the wallet is associated with their passport number. In order to become a seller, there is a short KYC process after which the ticket owner can sell tickets on the platform.

Anyone can put the ticket up for sale at any price they want. The ticket will be purchased assuming there is demand for the same flight at the seller's asking price.

When a ticket is sold, it is transferred to the buyer and we re-associate the ticket through our systems so that the airline always has the current owner of the ticket in their database.

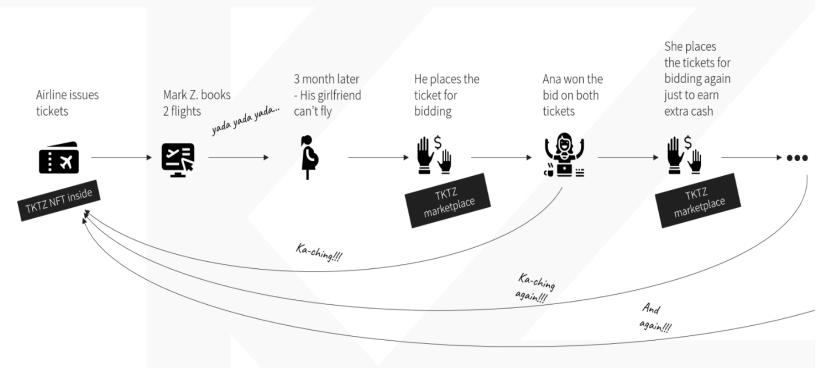
At the time of the sale, commissions of 7% are automatically charged.

After the sale, the seller holds the sale ticket price excluding 7%.

For example, if a seller buys a ticket for \$100 and then sells it for \$200, they would hold \$186 after fees.

In the next chapter we will discuss the solution in a more technical way for the technology lovers among us.

How it works FOLLOW THE MONEY



^{*} Ticket changes are permitted in accordance with the ticket T&C set by the airline and by the airline policy.

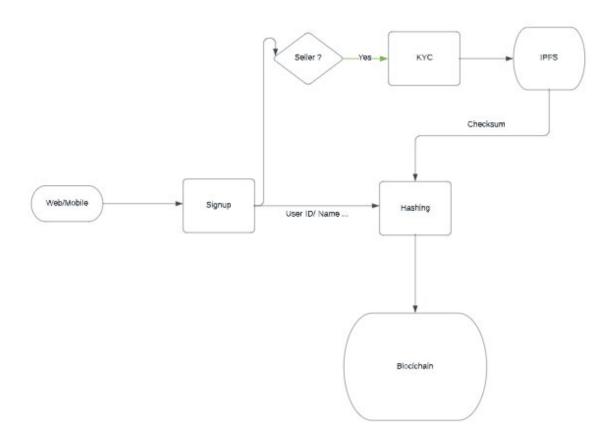


THE HOW

Using a combination of Enterprise-Grade Blockchain and a modular micro-service architecture, TKTZ created a secured and transparent system in accordance with the strictest compliance requirements.

With a direct connection to the multiple GDS, TKTZ can verify and update critical information about passengers and flights and inform in real time all the relevant parties while storing the information in an immutable ledger to ensure data integrity.

Identity



Depending on the role (Seller, Buyer, Partner), the user may be required to sign up and complete additional processes such as KYC, using a Web/Mobile frontend.

Once all the information is collected, the checksum of all the information is hashed using **double** SHA256 hashing.



This Hash is then stored in the ledger along with the user ID to ensure information integrity.

All documents are uploaded to a private IPFS network using shared secret key to ensure data replication.

The hash of the documents is then stored in the ledger along with the previous hash created.

The authorized partners can access this information in the ledger for security and compliance purposes using the blockchain explorer.

PNR

PNR is the most important code when buying a flight ticket. You can find answers to what PNR is, how to use it and how to obtain it, on this page.

PNR, PNR number, or PNR code is an electronic record consisting of numbers and letters assigned after booking a flight. PNR is the abbreviation of "Passenger Name Record" and it is also used as a booking number on the sectoral basis.

TKTZ can validate and update PNR information using its GDS connection module and store this information in the ledger.

Verification

Once a ticket is uploaded to TKTZ, its PNR number is extracted and verified against all the relevant GDS/LDS.

After verification, the PNR number along with the user ID and the current ISO 8601 timestamp are double SHA256 hashed to create the **TKTID** serving as the unique hash representing the current state of the ticket in the system.

After verification, the PNR number along with the user ID the ISO 8601 timestamp and the **TKTID** are being sent to the **Messaging broker** to be stored in the ledger.



Update

If a ticket is sold on the platform, the PNR is updated through the relevant GDS/LDS.

Once confirmed, the previous process is repeated to create the new TKTID and the new user ID, PNR number, ISO 8601 timestamp are sent to the Messaging broker to be stored in the ledger.

Blockchain

TKTZ uses a tier 1 L1/L2 as its blockchain.

This allows us to ensure security and transparency of our data.

This allows TKTZ to validate and approve transactions in transparency, working on an industry benchmark leading infrastructure.

The data is made available through a Caching database reflecting the latest state of the ledger.



BUSINESS BENEFITS

BENEFITS FOR TRAVELERS:

-Long-term planning flexibility to mitigate risk:

Gone are the days when you were reluctant to buy a future plane ticket, fearing that you might not be able to travel and pay high cancellation fees.

With TKTZ you can buy tickets a year ahead worry-free because you can sell the ticket regardless of the airline you chose and you won't pay a penalty.

-Full ownership transaction capabilities allowing simple and fast ticket reselling: By converting each ticket into an NFT we create a secure and simple trading platform, offering freedom and choice.

-Easy income source:

Using the TKTZ platform, every user can now become a travel agent. You can trade and sell tickets to make a profit the same way travel agents do today.

BENEFITS FOR AIRLINES

- A whole new business model: instead of selling tickets once, airlines can now generate recurring revenue from sales of the same ticket/seat. The following formula shows how the new model works for the airlines –

т	Traveler
Р	Ticket price (\$)
R	Ticket reselling times
N	Ticket sales increment factor (%)
F	cancellations and modifications fees (\$)
20%	Tickets' cancellations & modifications (average)
2%	Over booking

 $T \times P + [T \times 20\% \times (R \times P \times 4\%)] + N \times T \times P + (N \times T \times P) \times 4\%$



-Reduction of costs associated with cancelations and modifications:

Airlines could save costumer support expenses, related to ticket modifications and cancelations.

Using our platform, airlines do not need to allocate resources to these services because they all happen automatically through the platform.

-Long-term offering to clientele:

People will now be willing to purchase tickets far in advance, meaning the airlines could now offer tickets for even a year ahead.

This creates a big change in the way airlines operates today and it will create a whole new revenue stream that so far could not be utilized.

