ZEN CON

BLOCKSIDIAN
SECURE TICKET

TEAM

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Index

Team information.

Team and their responsibilities	Role
Arturo Hernández Bueno	Blockchain developer
Yasser Francisco Alvarez Esqueda	Blockchain developer
Cristopher Adán Salazar Escobedo	Frontend developer
Francisco Javier Rivera	Frontend developer
Sherlyn de la Hoya Quiñónez	Backend developer
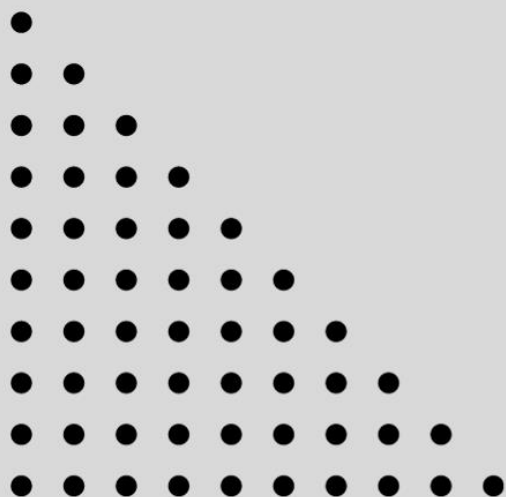
Project and team identity.

- Logo

  o Isotype: Symbolic part of the brand. It is recognized without text.

  o Logo: Combination of images and text. They also work separately.

Project and team name

- "Blocksidian"

Mission and vision

Mission: Our mission is to revolutionize the ticketing industry by using blockchain technology to ensure transparency, security, and efficiency in every transaction. We strive to provide a reliable and accessible platform that eliminates the problems associated with reselling, counterfeiting, and lack of trust in ticket purchases for events. We aim to deliver a unique experience to our customers by facilitating the fair and secure acquisition and management of tickets.

Vision: Our vision is to become recognized leaders in the ticketing industry, driven by blockchain technology. We want to establish a global standard for integrity and security in the buying and selling of tickets for all types of events, from concerts and sports to conferences and shows. We aspire to be a trustworthy and transparent platform that gives users peace of mind knowing they are acquiring authentic and legitimate tickets while eliminating unnecessary intermediaries and reducing associated costs.

Scope and objectives

- **Scope:** Our scope includes the ticketing industry, with a focus on utilizing blockchain technology to address issues related to reselling, counterfeiting, and lack of trust. We aim to provide a platform that caters to various events such as concerts, sports, conferences, and shows.

- **Objectives:** Implement blockchain technology: Our primary objective is to integrate blockchain technology into our ticketing platform to ensure transparency, security, and efficiency in every transaction.

- **Ensure transparency and authenticity:** We strive to create a system that guarantees the authenticity of tickets, eliminating the risk of counterfeiting and providing users with complete transparency regarding ticket ownership and history.

- **Enhance security:** Our goal is to create a highly secure platform that protects user information, prevents fraudulent activities, and safeguards against unauthorized access.

- **Eliminate reselling issues:** We aim to address the problems associated with ticket reselling by implementing measures that restrict excessive price markups and discourage scalping.

- **Build trust and confidence:** We seek to establish a platform that instills trust and confidence in ticket buyers, ensuring they feel secure and confident in their purchases.

- **Simplify ticket acquisition and management:** We strive to make the ticketing process easier and more user-friendly, providing a seamless experience for acquiring and managing tickets.

- **Reduce costs and eliminate unnecessary intermediaries:** We aim to streamline the ticketing process by minimizing unnecessary intermediaries, resulting in reduced costs for both buyers and sellers.

- **Become industry leaders:** Our objective is to become recognized leaders in the ticketing industry, setting a global standard for integrity, security, and efficiency in ticket transactions.

Project Q&A

What will the demo show?

The connection to the metamask portfolio, the events that have been created, user data will be displayed.

What is Blockchain and why use it?

Blockchain is a distributed ledger technology utilized to securely and transparently record data on a decentralized network. Its purpose is to guarantee data integrity, remove intermediaries, and bolster trust across a range of applications, including cryptocurrencies, smart contracts, and supply chain tracking.

What are Non-Fungible Tokens (NFTs) and why use them?

NFTs are non-fungible tokens that represent unique ownership of digital assets such as artworks or virtual collectibles. They are used to authenticate and track the ownership of these assets online, giving them unique value.

What is the differentiator of ERC721?

The key differentiator of ERC721 is that it allows the creation of non-fungible tokens, meaning that each token is unique and cannot be equivalently exchanged with other tokens, unlike fungible tokens such as ERC20 tokens.

What is the competitive advantage over other companies in the same business?

Our main competitive advantage lies in the blockchain technology we use in our platform. focusing on the user experience.

Which companies compete with blocksidian?

No blockchain	With blockchain
Ticketmaster It positions itself as a significant competitor in the ticketing industry thanks to its global presence, the variety of events it offers, its focus on innovative technology, and its close collaborations with artists and venues. These elements have established it as a leading player in the live event ticketing market.	**Yellow Heart.** It offers a number of innovative features that are not available with traditional ticketing platforms.For example, YellowHeart Ticketing allows artists and venues to create dynamic pricing models for tickets, such as tiered or demand-based pricing.YellowHeart Ticketing also allows artists and venues to bundle tickets with other products or services, such as early access to merchandising or meet-and-greet opportunities.
Viagogo It is a competitor because it is a ticket resale company that operates worldwide. It offers a wide range of tickets for events, including concerts, sports, theater and others. Viagogo is a digital platform that allows buyers to find and buy resale tickets from other users.	
Seatgeek It is an attractive option for customers looking to buy tickets for events.The company offers	

competitive pricing, a wider range of features and options, and a better customer experience.	

How much does it take to make the application?

- Average Frontend salary - 6,728 Dlls per month = 114,376 MXN
- Average Backend salary - 6,780 Dlls per month = 115,264 MXN
- Average salary blockchain developer - 2,670 Dlls per month = 45,395 MXN
- Computer equipment, probable prices - 902 Dlls = 15,393 MXN
- ERC721 implementation (NTF) 1170 Dls = 20,000 MXN
- Solidity implementation (Smart Contract) 2927 Dls = 50,000 MXN
- Hosting l 42.89 Dls (monthly) = 732.51 MXN
- Domain yearly 11.79 Dls = 201.76 MXN
- Total = 21,331.68 Dls = 362,638.56 MXN

What is the return on investment time?

It will depend on the amount of users the platform gets. It is estimated that the ROI will occur between the first 5 - 6 major events where the platform has participation.

Where are we?

We are currently at a crucial stage of our project, where we are immersed in the implementation phase of blockchain technologies and in the precise definition of our company and its products. This period represents an exciting and pivotal moment in our journey towards the creation of innovative and disruptive solutions that leverage the full potential of blockchain technology.

The implementation of blockchain technologies involves the adoption of a robust and secure infrastructure that enables the creation of immutable and transparent records, as well as the execution of smart contracts. We are working hard to ensure that this technology is efficiently integrated into our operations and becomes a fundamental part of our products and services as well as our vision, mission and values.

Who is the target audience of the app?

It is aimed primarily at a wide variety of audiences interested in purchasing tickets such as concerts, sports, events, etc. Blocksidian offers a wide range of events and entertainment options, so the app targets a diverse audience looking for easy access to tickets.

Nomo app & Zeniq

What advantages can we exploit from Zeniq?

The ability to perform cryptographic transactions in real time is a significant advantage for any project. Instant cryptographic payments in physical stores (POS) and online can improve the user experience by eliminating delays and providing an efficient way to make purchases.

Interfacing with IBAN is important for user convenience. It allows users to transact in both traditional currency and cryptocurrencies, which can extend the reach of your project and facilitate the adoption of cryptocurrency as a form of payment.

Zeniq's advantages, such as security, transaction speed, connectivity with Zeniq, ease of use and interface with IBAN, can significantly improve the functionality and user experience of the project related to crypto transactions, increasing its attractiveness and potential for success.

Zeniq es una plataforma de criptomonedas que ofrece una serie de ventajas que pueden ser explotadas por Blocksidian, una plataforma de venta de entradas basada en blockchain. Estas ventajas incluyen:

Security: Security is a major concern for consumers when purchasing tickets. Zeniq offers a high level of security, which can help Blocksidian gain the trust of consumers.

Transaction speed: Consumers want to be able to buy tickets quickly and seamlessly. Zeniq enables real-time cryptographic transactions, which can help Blocksidian deliver a smooth and efficient shopping experience.

Connectivity with Zeniq: Zeniq is a secure and easy-to-use cryptocurrency wallet. This can help Blocksidian make it easier for users to buy and sell tickets.

Ease of use: Most consumers are not familiar with cryptocurrencies. Zeniq is designed to be easy to use, even for people with little experience with cryptocurrencies. This can help Blocksidian reach a wider audience.

Interface with IBAN: Zeniq allows users to transact in both traditional currencies and cryptocurrencies. This can help Blocksidian expand its reach and facilitate the adoption of cryptocurrency as a form of payment.

What advantages can we take advantage of Nomo App?

Time Savings: Automating financial and accounting tasks through Nomo App allows NFT ticketing site owners to save time that can be spent on more strategic activities, such as event promotion and improving customer experience.

Efficient Financial Management: By using Nomo App, an NFT ticketing site can manage its finances efficiently. It can track revenue and expenses related to ticket sales, which facilitates

accounting and tax filing, as well as gives us the opportunity to implement our apps within nomo as a plugin to have nomo functions within our apps.

Who is interested?

Sites that are also in the online ticketing environment

Event promoters: offers event organizers a secure and efficient way to sell tickets.

Fans: offers fans a secure and easy way to buy tickets for events.

Investors: As it has the potential to be a profitable venture.

Developers and technology partners: Application developers and technology partners may be interested in integrating Blocksidian's services into their own technology solutions.

Why does the market endure?

Because the online ticketing industry will continue to streamline the purchase and get instant results for the person interested in their favorite event. In addition, the variety of events has always been diverse with a wide range.

How is the money generated?

By charging commissions for each ticket purchase for an event.

In the future Blocksidian could offer premium services, such as advance ticket sales or the possibility to resell tickets without commissions.

And Blocksidian could sell advertising space on its platform to event creators for a better positioning of the event.

What is the business model?

The business model is not based on the sale of the app, you will be charged for the use of the application (ticket sales), one dollar for each sale.

What is our identity?

Blocksidian focuses on technological innovation and reliability using blockchain technology to ensure the security in which things are done by providing users with assurance that their data and transactions are protected and verified.

Blocksidian is a secure, transparent and efficient platform for buying and selling tickets. It is designed to be easy to use and accessible to all.

Blockchain development

The following tools and technologies were used in the development of the project:

Solidity

- *Definition*: Solidity is a high-level programming language specifically designed for creating smart contracts on blockchain platforms, primarily focusing on Ethereum.
- *Functionality*: It allows developers to define rules and logic for smart contracts. These contracts are executed on the Ethereum Virtual Machine (EVM), ensuring the automation and reliable execution of digital agreements.
- *Application within our project*: Solidity was implemented for blockchain smart contract creation using ERC721, which is a standard interface for non-fungible tokens (NFTs) on the Ethereum blockchain. Each ERC721 token is unique and distinctive, making them ideal for representing ownership of rare or collectible items.

Hardhat

- *Definition*: Hardhat is a development environment for building, testing, and deploying blockchain-based applications, with a specific emphasis on Ethereum. It provides a set of tools that streamline the development cycle.
- *Functionality*: It offers commands and scripts for compiling, deploying, and testing smart contracts, as well as facilities for managing tests and simulating local blockchain networks.
- Application within our project: Is a tool used to efficiently build and test your decentralized applications and smart contracts locally, simulating a blockchain execution, having access to test accounts with ether currency.

EtherJS.

- **_Definition_:** EtherJS is a JavaScript library that facilitates interaction with Ethereum network nodes and the construction of decentralized applications.
- **_Functionality_:** It provides an Application Programming Interface (API) for interacting with the Ethereum blockchain. This includes creating transactions, deploying and managing smart contracts, as well as querying blockchain information.
- **_Application within our project_:** With this tool we connect the ABI file with the development of the project, making an intermediary to process the information between the blockchain contract and the frontend/backend of the application.

Metamask.

- **_Definition_:** MetaMask is a digital wallet and browser extension that allows users to interact with decentralized applications (dApps) on the Ethereum blockchain. It facilitates the storage of cryptocurrencies, management of private keys, and secure transaction execution.
- **_Functionality_:**

  - Provides a user-friendly interface for interacting with dApps on Ethereum.

  - Stores private keys and enables users to access and manage their cryptocurrency funds.

  - Enables secure transaction execution and message signing on dApps.

  - Compatible with a variety of blockchain networks and ERC20/ERC721 tokens.

- **_Functionality_:** We use metamask to be able to login the user and add test accounts in order to test the contract, so we can store the NFTs inside each address.

Can we use ERC-1155 over ERC-721?

ERC-1155 is a token standard on the Ethereum blockchain that is used to create and manage a wide variety of digital tokens, whether fungible or non-fungible, in a single smart contract. It was developed to address the limitations of the ERC-20 and ERC-721 standards by offering greater flexibility and efficiency in managing digital assets on the Ethereum blockchain.

Advantages and reasons to use ERC-1155:

- Flexibility: ERC-1155 is highly versatile as it allows a wide range of tokens to be created in a single smart contract, which saves deployment costs and facilitates the management of different types of digital assets.
- Gas Efficiency: By consolidating multiple token types into a single contract, the need to execute costly transactions on the blockchain is reduced, which can result in significant savings in gas costs.
- Interoperability: ERC-1155 facilitates interoperability between different decentralized applications and plays (dApps) as one contract can handle tokens that are compatible with a variety of projects.
- Improved user experience: it allows users to manage multiple token types within a single wallet or platform, thus simplifying the end-user experience.
- Scalability: It can be beneficial in terms of scalability, as it reduces blockchain congestion by grouping multiple tokens under a single contract.

Frontend development

The following tools and technologies were used in the development of the project:

ReactJS.

- *Definition:* *Open-source JavaScript library for building user interfaces. It allows developers to create reusable UI components and manage the state of web applications efficiently.*
- *Functionality:* *allows developers to build interactive and dynamic web applications. Some of its key functionalities include:*
    - *Developers can create encapsulated UI (User Interface) components that can be reused throughout the application.*
    - *Uses a virtual representation of the DOM (Document Object Model), which improves performance by minimizing direct manipulation of the actual DOM (Document Object Model).*
    - *Provides a mechanism for managing application state, making it easier to build complex UIs (User interfaces).*
    - *Follows a unidirectional data flow, making it predictable and easier to debug.*
    - *Has a large ecosystem of libraries, tools, and community support.*
- *Application within our project:* *It is the basis of the entire project, using Vite to build it for its speed and efficiency. With it we were able to obtain a tidy code and a cleaner code by reusing components and other functionalities.*

Firebase.

- *Definition:* is an extensive application development platform that offers a suite of cloud-based tools and services for mobile and web applications. It provides features such as real-time databases, user authentication, cloud functions, hosting, and analytics, allowing developers to streamline the development, deployment, and scaling of their applications.
- *Functionality:*
    - Offers a real-time database that allows data to be synchronized in real-time across clients, making it suitable for applications that require live updates.
    - Provides a comprehensive authentication system with support for various sign-in methods, enhancing the security of your applications.
    - Lets you extend your application's behavior by running serverless functions in response to events, such as database changes or HTTP requests.
- *Application within our project:* We use the FirebaseAuth authentication system to be able to access the site, implementing middlewares to prevent access to unauthenticated persons.

TailwindCSS.

- *Definition:* A utility-first CSS framework for rapidly building custom designs.
- *Functionality:*
    - Provides a vast set of utility classes that simplify styling by allowing you to apply styles directly to HTML elements without writing custom CSS.
    - Is highly customizable, allowing you to tailor the utility classes to match your project's design requirements.
    - Includes responsive design utilities, making it straightforward to create responsive layouts that adapt to different screen sizes and devices.

- ***Application within our project:*** *With it we were able to stylize the whole project making each component of the website unique, helping to have an order in the color palette, implementing the dark mode and making a responsive design.*

Roadmap

Phase 1: Definition of the company and creation of the website.

Phase 2: Development of the ticketing platform.

Phase 3: Launching of the platform.

Phase 4: Switch from ERC-721 to ERC-1155.

Phase 5: International expansion.

Phase 6: Marketing Campaigns.

Phase 7: Implementation of premium services.

Phase 8: Implementation of security with biometrics AI.

We currently stay at phase 3