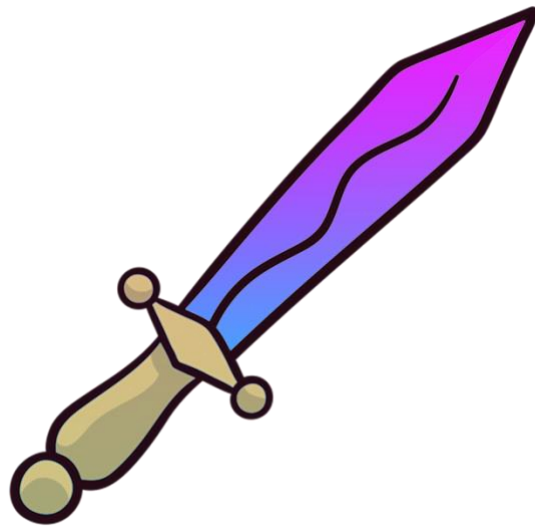# Altura

A smart contract platform for minting,
Distributing and transacting Smart NFTs

Majd Hailat & Maxim Sindall

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Introduction

In-game items are a big part of any videogame and allow gamers to own digital assets. However, in-game items are centralized, not easily exchangeable, and challenging to implement. Altura is a smart contract platform that allows game developers to mint, distribute and transact Smart NFTs representing in-game items. Smart NFTs are NFTs with dynamic properties that can change based on certain conditions. Smart NFTs are the next step to making decentralized in-game items mainstream and offer a massive range of potential opportunities that are not possible with traditional NFTs. We want to create an easy-to-use interface and API for creating Smart NFTs, an open marketplace for transacting NFTs using the Altura token, and we want to introduce truly random smart loot boxes to the blockchain.

The problem

Lack of Ownership

Gamers don't truly own their items and don't have the freedom to send, receive and trade, these items due to complete centralization and control of in-game items by game developers. In-game, items can be manipulated, deleted, or outright shut down by game developers, which keeps gamers from truly feeling like they own their items.

Shady Marketplaces

Since many videogames do not allow items to be traded, shady high-fee marketplaces are created, and sometimes entire accounts must be traded to transfer ownership of an in-game item from one person to another.

Difficulty in Developing a Virtual Economy

Many small indie games want to provide their users with the ability to buy, sell and trade in-game items. However, building an entire inventory and marketplace system is time-consuming and difficult.

The Solution

Cryptocurrency provides us with an opportunity to give gamers true ownership over their digital items and collectibles and a way to produce truly scarce digital collectibles. This gives in-game items true intrinsic value, gives gamers a real monetary incentive to acquire in-game items, and gives game developers plenty of opportunities to earn more revenue from their products. Altura wants to provide easy-to-use solutions for minting NFTs – Nonfungible tokens – to represent in-game items. We also want to provide

Smart NFTs; NFTs with dynamic properties that can be changed based on time-based conditions, function-call-based conditions, or real-world conditions offer a new world of potential NFTs. This is an idea that has yet to be effectively implemented in an easy-to-use manner.

What are we Creating?

Smart NFTs

Altura will provide an easy-to-use user interface to mint smart NFTs as well as an API for developers to mint NFTs. These NFTs, along with all their metadata, will reside on the blockchain as BEP721 smart contracts.

A breakdown of a Smart NFT:

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Logo	Unlike traditional NFT marketplaces like OpenSea or Rarible, the logo, or image, is not the NFT itself. Instead, the NFT is the actual in-game item represented by a developer within a game. The look, feel, and the game developers entirely determine the functionality of this item; however, the underlying item itself cannot be fundamentally changed.
Name	Item name; appears in wallet and marketplace
Description	Item description; appears in item product page
Collection	Collections are unique, meaning there cannot be two of the same collections. Collections are simply categories that are used to group NFTs.
Game	The *game* property is used to identify NFTs by the game they originate from. An NFT created by a non-game developer does not belong to any

	game and does not require a *game* property. *Games* are unique, and there cannot be two of the same *games*. The *game* property may be used to search for NFTs that belong to the same game. Additionally, *games* may have their product page with a title, description, and image.
Properties	Properties are essentially the stats and unique traits that make up an in-game item. Properties may be numerical values such as damage or strings such as rarity, type, etc. Properties may be read by the game developers and can affect the functionality of an in-game item. For example, a weapon can have a "strength" property that affects the amount of damage it deals.
Static properties	Static properties are set when the NFT is first minted and cannot be changed afterward.
Dynamic properties	Dynamic properties may or may not have an initial value. They can be changed in three possible ways: time-based, function call-based, or oracle-based. Game developers may attach a script to an in-game item that changes its dynamic properties. This is where the term smart NFTs comes from. Having dynamically programmable properties opens the doors for a wide range of possibilities.
Transaction tax	The creator of an NFT can set a tax paid to them every time the NFT is transacted on the Altura marketplace. This allows game developers to earn revenue from their in-game items even after they are initially sold.

Types of dynamic properties

Time-based	Dynamic properties can be set to change when a specific date and time are reached or every specified time interval. For instance, a Pokémon NFT may have a property representing its evolution, and that property may be programmed to increment by one every 20 days until a specific value is reached.
Function-call based	Functions may be written to change a dynamic property. These functions can be programmed such that they can either be called by the owner of the NFT or solely by the game developer or both. Having dynamic properties that the creator of the NFT can only change makes it such that game developers can continue to have control over their items regardless of who they belong to.
Oracle-based	Oracles, such as ChainLink, are third-party services that provide smart contracts with real-world data. An NFTs dynamic properties can be programmed such that it will change based on real-world conditions. For instance, a playing card of a soccer player can have a property called "games won," which represents the number of games won by that player in his career. Oracle-based dynamic properties are a revolutionary idea and greatly expand the possibilities of what NFTs can be used for.

Loot Boxes

Loot boxes are an excellent source of revenue for many game developers. Their functionality gives a player a chance to unlock a random in-game item from a pre-determined set of in-game items. Each item has a certain probability of being dropped. Loot boxes are NFTs as well and can be traded. A loot box has the following properties: a name, an icon, a description, and a list of potential item drops along with the percentage of each item being dropped.
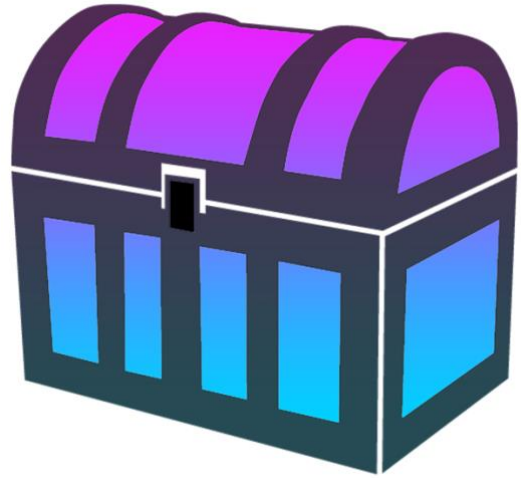
NFT blueprints are non-tradable, valueless NFT skeletons that can be created as a blueprint for creating NFTs. A blueprint will have a name, icon, description, collection, game, and empty static or dynamic properties. These properties can be "filled in" when the NFT is about to be minted. NFT blueprints are used to create loot boxes. The blueprints are created first, and then a loot box is created, and the blueprints are provided along with the chance of getting each item. When a loot box is unlocked, a blueprint will be selected, and the properties will be filled in on the spot by the script running in the loot box, which will result in the creation of an NFT. The loot box will then be burned. These properties, both static and dynamic, can be filled in based on RNG or pre-determined rules provided in the script that is supplied with the loot box.

Loot boxes can be programmed such that they can be unlockable based on time restrictions or real-world events. For instance, a loot box can be set such that it cannot be unlocked until a specific year or until the price of BTC reaches $400,000. Additionally, loot boxes can be programmed only to be unlocked by the game developer or by the owner of the loot box.

Game developers can mint a finite or an infinite number of loot boxes and sell them for a fixed price to prevent a market from developing around these items.

A Marketplace

Altura will provide a native marketplace for transacting NFTs created through Altura. The marketplace will allow anyone to list their NFTs for any price or sell them through an auction. The marketplace will be open for anyone to list any NFT. However, users will be given the option to view only NFTs created by verified game developers. Since the Altura marketplace is an open marketplace, we want to make it easy for game developers to have their items separately categorized from the masses. Game developers will be verified through a manual verification system conducted by the Altura team. Verified games' items will be separated from the masses to provide a noise-free marketplace for legitimate projects. Verified games' items listed by individuals will also belong with the noise-free market. The lister does not matter in this case, just the item. All transactions conducted on the Altura marketplace will be settled in the Altura native token, and sellers will receive the Altura token. Additionally, loot boxes may also be sold on the market.

APIs and SDKs

APIs and SDKs are essential to interacting with Altura' NFT infrastructure. We want to create the tools for developers to mint, access, and transact NFTs within their video games on the fly.

Altura Token Functionality

The Altura token is the native currency of the Altura digital-asset marketplace. It is used to buy and sell NFTs on the market. Additionally, game developers will receive item-transaction commissions in Altura. The currency used to pay for transaction fees on the Altura marketplace is still unknown.

Altura' Revenue Model

Altura only makes money from the Altura marketplace. NFTs created through Altura do not provide us with any form of revenue unless they are transacted in our marketplace. However, third-party marketplaces may open to transact Altura smart NFTs, and we will be unable to profit from transactions done on third-party platforms. Every time an NFT is transacted on the Altura marketplace, we will take a small fee from the payment. Additionally, game developers will also take their cut when an item is transacted on the Altura marketplace. A system for preventing third-party marketplaces from opening is currently not in place, but we actively think of and work on a solution to this problem.

Game Developer's Revenue

Game developers can make money from their NFT in three ways: They can sell their in-game items. They can sell loot boxes, which may have an infinite supply, and provide a way for in-game items to enter the marketplace without the game developers directly
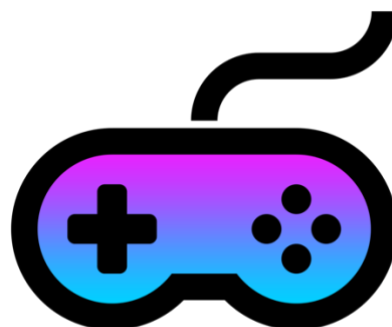
selling the items. This allows items to develop an entire economy. Additionally, when a developer mints an NFT or NFT blueprint, they can specify how much of a fee they receive every time the item is transacted on the Altura marketplace. This makes it such that every time an item is bought/ sold on the open marketplace, the game developer takes a cut. This provides an ever-lasting form of passive income for the developer.

Founders

Majd Hailat
Founder and Lead Developer

Majd, an ambitious young entrepreneur is the developer of Portfolio View and the host of Eager Money YouTube channel with 15,000 subscribers. He has been a developer and investor in the cryptocurrency space since 2019

Maxim Sindall
Co-Founder

Maxim developed an educational program called 'Understanding Computing' where he helped students grow their knowledge in blockchain, and cryptocurrency. He also manages over 3 million dollars in private investments for clients.

Altura Token

Tokenomics

Name: Altura

Symbol: ALU

Type: BEP20

Chain: BSC

Supply: 1,000,000,000

Purpose: Market transactions, governance
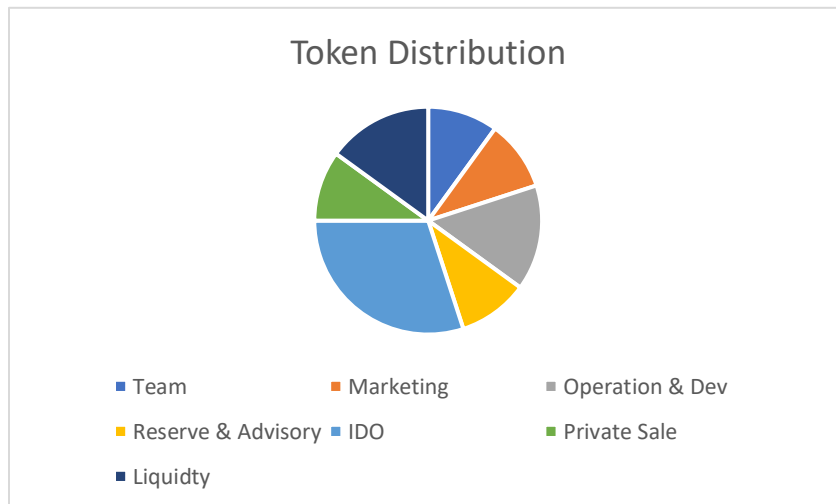
Token Distribution

10% Team

10% Marketing

15% Operation & dev

10% Reserve & Advisory

30% IDO

10% Private sale

15% Liquidity

Token Distribution

- Team
- Marketing
- Operation & Dev
- Reserve & Advisory
- IDO
- Private Sale
- Liquidty

Day 1 Valuations

Listing price: $0.00086

Day 1 circulating supply: 175,000,000

Day 1 market cap: $150,000

Vesting

Categories	Allocation	Amount	Price	Lock period
Team	10%	100,000,000		3 months
Marketing	10%	100,000,000		3 months
Operation and Dev	15%	150,000,000		1 month
Reserve & Advisory	10%	100,000,000		3 months
IDO Sale	30%	300,000,000	$0.00057	
Private sale	10%	100,000,000	$0.00045	
Liquidity	15%	150,000,000		
Total	**100%**	**1,000,000,000**		

Roadmap

Phase 1

The Launch

- Launch of website

- Token IDO on Oxbull

- Token listing on Pancake Swap

- Launch of MVP

- Start of marketing and public awareness

Phase 2

Building a Playground

- MVP Iteration
    - Launch of loot crates
    - Launch of smart NFTs
    - Launch of API
- Research and development
- Team expansion
- Further marketing

Phase 3

Product Development

- Launch of full-fledged smart NFTs
- Introduce oracle-based loot boxes
- Further research and development
- Strategies a marketing and adoption plan

Phase 4

Adoption and Expansion

- Launch of our own simple game that utilities our NFTs
- Have indie game developers adopt Altura in their videogames
- Further product development and iteration

Phase 5

Further Adoption and Expansion

- Have major gaming companies utilize our SDKs and APIs

- Have major gaming companies roll out NFTs on Altura

- Further marketing and expansion