Introduction

Astral Pioneers (AP) is a Non-Fungible Token (NFT) and metaverse project on the Ethereum blockchain that will allow players to own their own land, mine that land for resources, and build with those resources on 30 different planets. Owners of land will be able to create their own planets and sell land on them. AP will introduce a new type of in-game governance for players using Soulbound Tokens (SBT) to represent and ensure citizenship. AP will have in-game decentralized finance (DeFi) functionality so players can lend tokens or lease their land to others. AP will introduce a number of RPG type adventures where players can earn rare resource tokens and magical item NFTs. AP will also act as a premier virtual venue for concerts and other events.

Tokenomics

AP NFTs

Astral Pioneers will begin as 9,990 alien avatar NFTs plus ten 1/1 experience scenes that will be recreated in the game. The mint price will be 0.0888 ETH per AP NFT. AP is using the gas optimized ERC-721A contract so multiple-NFT buyers can save considerably on gas. The supply will be distributed as follows with none of the 1/1s or aliens with super rare traits going to AP or the team:

- 98% Public Mint
- 2% AP Corporate (For the founders and team)

Governance and Utility Token

AP will issue an ERC-20 token used for in-game purchases and for governance of the AP DAO called Astral Pioneers Coin (APIC). There will be a fixed total supply of

10,000,000,000 APIC. Holders of the AP NFTs will be airdropped 50,000 APIC per NFT they own. The private strategic token sale will be for a price of $0.00555 per APIC and the public token sale price will be $0.00888 per APIC. The token distribution is as follows:

- 35% Public Token Sale
- 35% AP Corporate (For the founders and team)
- 20% AP DAO Charity Fund
- 5% Strategic Token Sale
- 5% AP NFT Holder Airdrop

AP States and Resource Tokens

Once the tokens are distributed, there will be a sale of AP States NFTs that represent states on the 30 original planets. Each planet will consist of 3000 states for a total initial supply of 90,000 AP States. Holders of AP NFTs will be guaranteed the right to purchase 2 AP States per AP NFT. AP States will cost 20,000 APIC each.

Each owner of an AP State will be able to mine that land for resources. Resources are ERC-20 tokens to enable trading outside of AP. To create items or build structures you must have the required amount of resources. Resource tokens are burned when they are used to make something. There are 15 total mineable resources plus secret magic resources that players will find in-game. There are three categories of known resources: Gemstones, Precious and Semi-Precious Metals, and Industrial Materials. Landowners must purchase mining licenses to begin mining on their land for 500 APIC per license. Landowners are permitted to mine two resources at a time per category for a total of six mining operations per AP State. Landowners can switch what resources they are mining at any time. Mining licenses alone are non-transferable to another user or another state. They are fixed and permanent once bought, which means once a state has its mining licenses established they remain installed when the state is transferred to another wallet or traded or sold, in perpetuity.

Each resource has a maximum potential yearly emission. So, for example, there will be a maximum potential supply per year of 500,000 diamonds that can be mined. To calculate the amount mined per hour per mine: 500,000/365/24 = 57.0776255708/90,000 = 0.0006341958 carats of diamonds mined per hour per mine on the 30 original planets. The initial potential yearly emission of each resource is as follows:

Diamond: 500,000 carats/year

Emerald: 6,000,000 carats/year
Ruby: 2,250,000 carats/year
Sapphire: 3,550,000 carats/year
Moonstone: 14,400,000 carats/year

Lumber: 2,000,000,000,000 cords/year
Steel: 800,000,000,000 beams/year
Marble: 75,000,000,000 sheets/year
Glass 450,000,000,000 sheets/year
Fabric: 250,000,000,000 yards/year

Gold: 25,000,000 ounces/year
Silver: 500,000,000 ounces/year
Platinum: 38,500,000 ounces/year
Copper: 7,000,000,000 ounces/year
Nickel: 1,750,000,000 ounces/year

AP will have an internal trading platform for APIC and resource tokens. Trades between resource tokens or trades between resource tokens and APIC on the AP platform are charged a 2% tax; 1% for AP Corporate and 1% for AP Government. The government portion of the tax can be adjusted with legislation. By default, resource tokens are issued on the platform off chain. Resource tokens will not be minted to the Ethereum blockchain until a player chooses to mint them to an external wallet. Each registered player will have an internal wallet so that they can trade and use resource tokens gas free on the platform. Resource tokens have a zero premine supply.

Owners of AP States from the original 30 planets will be eligible to purchase their own newly created planet. AP States on newly created planets have 33.3% of the mining capacity of AP States from the 30 original planets. So, the amount of diamonds mined per hour per mine on a newly created planet is calculated as 0.0006341958/3 = 0.0002113986 carats of diamonds per hour per mine. AP offers three tiers of planets for sale: large, medium, and small. A large planet costs 5,000,000 APIC and comes with 1000 AP States. A medium planet costs 2,500,000 APIC and comes with 500 AP States. A small planet costs 500,000 APIC and comes with 100 AP States. Every time a new planet is created, the total potential supply of resources per year increases. For example, each newly created large planet will increase the total potential supply of diamonds per year by 1,851.8518519 carats of diamonds.

Identity Management

There are three layers of identity within AP. Anonymous users are permitted in the game without registering a user handle. These players are called spirits and they will appear as a translucent mist. Spirits will be primarily used for public events and concerts so people can enjoy the show without needing to register. The second layer of identity within AP is the avatar which requires user registration and a handle. Avatars cost 100 APIC and are NFTs. Players can buy and switch between as many avatars as they want. AP NFT holders' avatars will be included for free. All sorts of races of aliens and humans alike will be available. Avatars come with one set of clothes/accessories for free, but players can purchase more from creators if they choose.

The third layer of identity is citizenship. Citizenship costs 200 APIC per person. To become a citizen, players must go through a KYC (Know-Your-Customer) process to ensure that each citizen is a single real human being. Citizenship is necessary if you want to participate in the AP Government as a Senator, Delegate, or Voter. Citizenship is represented by a Soulbound Token which is a non-transferrable NFT that contains encrypted data confirming that each citizen's identity in the real world has been verified.

Governance

Astral Pioneers has two levels of governance: External and Internal. External governance consists of the AP DAO that directs the AP Charity Fund. The main goal of the AP DAO is to donate $1,000,000,000 to charity by 2033. The AP DAO will be a traditional DAO where APIC tokens are votes. Token holders can delegate their votes in the AP DAO to anyone they want. Internal governance consists of the AP Government that proposes in-game legislation and directs in-game tax money. Players must buy citizenship to participate in internal governance and must own APIC to participate in external governance.

There will be 12 Senators from each of the 30 planets for a total of 360 initial Senators. Senators must own at least one state from the planet they represent. Senators may only represent one planet at a time in the Senate. Senators primary responsibility is to vote on legislation from the people that has met a quorum. Senators serve one year terms so there will be new elections every year. Any citizen may propose legislation. It costs 50 APIC to make a proposal. Citizens can vote yes or no once on each proposal. Citizens can also delegate their vote to any other citizen who will then vote for them. Once a proposal meets a quorum of 55.5% of the total citizenry, the legislation goes to the senate to be voted on.

Legislation in the Senate will pass if more than 50% of the Senators vote yes. Next, the bill will go to the executive who can choose to sign it or veto it. If signed, the bill becomes law. If vetoed, the proposal goes back to the citizenry to amend it and go through the process again to see if the executive will sign it into law with amendments. The executive serves for life. The first executive is me, quantumgravity444.eth. The executive chooses their successor.

Newly created planets will gain representation in the Senate once they are 40% settled. This means that, for example, a large planet must have 400 individual citizens who own states on that planet before the planet can gain representation in the Senate. Once new planets reach this threshold they will gain: four seats for large planets, two seats for medium planets, and one seat for small planets. This policy of requiring planets to be settled is needed in order to prevent people from being able to effectively purchase Senate seats.

DeFi Capability

Astral Pioneers will also offer a suite of decentralized finance capabilities. Players will be able to lend and borrow APIC and any resource tokens within the AP metaverse on the AP platform. Players will be able to lease out land they own or acquire new leases on others' land. There will be options for landowners to take a cut of resources mined on leased land for a lower lease cost on the property.

Creator Economy

What sets AP apart from other creator platforms is that anything built within AP will have actual intrinsic value because creators must burn resource tokens in order to mint items and structures. Creators will be able to design whatever they want and the platform will tell them the resource tokens required to build their design. Creators can even create designs and sell their designs as blueprints for other creators to use to build items and structures automatically. AP will have its own internal marketplace so that creators can mint and sell their creations to others. AP States can also be bought and sold along with structures, items, and blueprints. All trades of NFT items, structures, blueprints and AP States on the AP Marketplace are charged an 8.88% tax, subtracted from the sale price; 4.44% for AP Corporate and 4.44% for AP Government. The government portion of the tax can be adjusted with legislation. Purchases directly from AP are always tax free.

Play to Earn Gaming

Astral Pioneers will develop and release a role playing game on the AP platform where you are a human on Earth who astral projects to other planets into the bodies of aliens to complete quests and adventures. Completion of quests and adventures will reward players with magical NFT items, secret magic resource tokens, and will allow them to gain access to secret planets too.

Music and Event Venue

Companies and organizations can hold their own events on the AP platform. In addition, AP will have regular, free public concerts for anyone. Astral Pioneers seeks to become the premier virtual concert venue for artists.

Conclusion

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