Sniffing out your next NFT obsession, with alerts and automatic buy for unbeatable prices !

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Table of contents

I)INTRODUCTION

Non-Fungible Tokens (NFTs) have revolutionized the way we perceive and assign value to digital assets. Each NFT, represents a distinct digital item—be it art, real estate, or collectible. However, within the vast landscape of these digital tokens, a new challenge arises: **rarity**. In any NFT collection, not all tokens are created equal. Some are more rare and, consequently, more sought after, leading to fierce competition and inflated prices.

In this rapidly evolving marketplace, a significant number of participants engage in a relentless race, vying for ownership of these rare NFTs. The fierce competition often leads to a scenario where prospective owners struggle to secure the NFT they desire at a price they can afford. This intense battleground, rife with complexities and volatility, calls for a comprehensive solution that eases the user experience while optimizing their success rate in acquiring preferred NFTs.

Enter our solution: Sniffer. Designed to navigate the intricacies of the NFT market, the Sniffer does more than just monitor the digital scene. It actively observes, analyzes, and acts. Users **receive live alerts on the latest listed NFTs**, keeping them ahead of the curve and in the know. However, our tool does not merely stop at alerting users; **it intelligently evaluates the rarity of each NFT**, enabling users to tailor their preferences and narrow down their search to the types of rarity they desire.

But our solution doesn't end there. Understanding the necessity for swift action in this competitive marketplace, our NFT Sniffer is equipped with an automatic purchase feature. Users can grant the application allowance to execute purchases on their behalf the moment their preferred NFT is listed at the best price. **This way, Sniffer not only finds and evaluates, but it also "snipes" the NFT, securing it for the user at an optimal price point.**

This whitepaper details the intricacies of Sniffer, a tool designed to transform the way you engage with the NFT market, maximizing efficiency, accuracy, and success in your digital ventures. Join us as we embark on a journey through the universe of NFTs, making the rare and exclusive accessible to you at the best price.
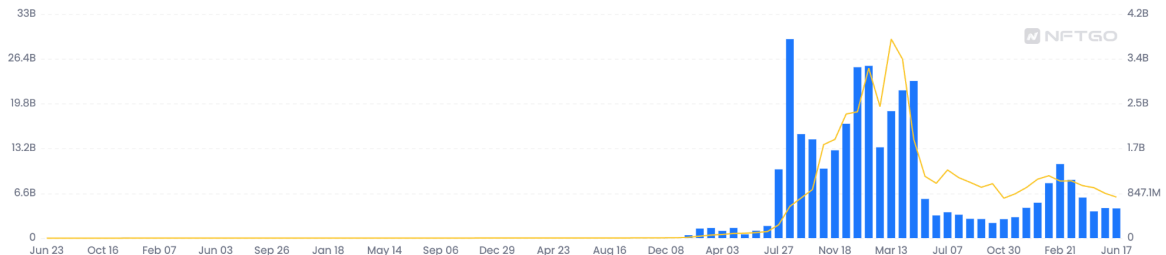
II)CURRENT STATE OF NFT MARKET GLOBALLY AND ON XDC

Market Cap & Volume

Market Cap ⓘ $6.06B   Volume ⓘ $42.76B

The total volume traded is over 42 billion, with a current total value of 6 billion. Note that this number has fallen massively since its peak of 29 billion.

This still extremely young market needs to adapt its tools to acquire the next wave of users and retain them more effectively.
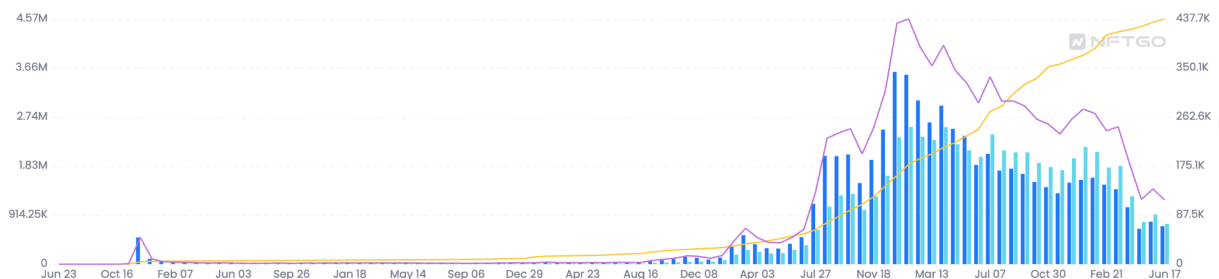

Holders & Traders

Holders ⓘ 4,571,215   Traders ⓘ 2,854,096   Buyers ⓘ 2,261,849   Sellers ⓘ 1,616,874

The NFTS market has seen a massive wave of adoption thanks to the 2020-2022 bull-run cycle.
With an explosion of 2700% in the number of NFT holders (139K to 3.8M) over this period, the development of the ecosystem has calmed down but still has over 4.5M NFT holders today.

This rapid increase in the number of users has outstripped the speed of development for the infrastructures, not allowing all users to have access to optimized products enabling them to acquire the NFTs they want and have access to quality information.

Several NFT sniffers have already appeared on the current ecosystem but a lot of them are not working correctly and none of them allow to push the tool further and snipe directly the NFTS that users want.

The NFT market on XDC network

XDC chain has two major marketplaces XDsea and primeport which have multiple NFT collections listed on them. One of the major collections Prime numbers trades with a floor price of several hundred dollars with some NFTs going up to several thousand dollars.

With these solid foundations in place, XDC's user base can rapidly expand with the arrival of new tools that will make it easier to onboard the next wave of users.

III) OUR SOLUTION: SNIFFER

Our NFT Sniffer is a comprehensive tool with ease and precision. Here's how we revolution the way our users find they favorite NFT :

- **Rarity Evaluation**: Leveraging our proprietary scoring system, we assess the rarity of NFT collections. Each NFT is assigned a score that signifies its rarity, providing a clear, quantifiable measure to aid in your selection process.

- **Custom Sorting:** Users are empowered to sort collections based on characteristics that pique their interest. Our tool offers the flexibility to customize your search parameters, ensuring a highly personalized experience tailored to your unique NFT interests.

- **Discord Connection for Live Alerts:** We understand the importance of real-time information in the fast-paced NFT market. Users can connect their Discord accounts with our application to receive instant notifications when a new NFT, matching their selected rarity level and price criteria, gets listed in their chosen collections.

- **When an alert is received, the user has two options:**

    Direct Purchase Link : If they have sufficient funds in their wallet, we provide them with   a direct link to the listed NFT's page, enabling immediate purchase.

    Non-Collateralized Loans : If users doesn't have enough funds he can secure non-collateralized loans through Union Finance, a trusted platform for liquidity loans. Please note, users will need to have registered with Union Finance beforehand.

- **Automatic NFT Sniping:** The NFT market waits for no one, and speed is of the essence. Our solution allows users to grant our dedicated wallet the allowance of the necessary funds to automatically execute a purchase the moment a desired-rarity NFT gets listed. This means, users can "snipe" their desired NFTs at the best price, right at the moment of listing, without the need for manual intervention.

Sniffer strives to provide an end-to-end solution that equips users with the right tools to efficiently and effectively navigate the NFT market, making the pursuit of digital ownership a more accessible, enjoyable, and successful experience.

IV) TYPICAL USER PATH

With all these features we are able to offer our users the following pathway :
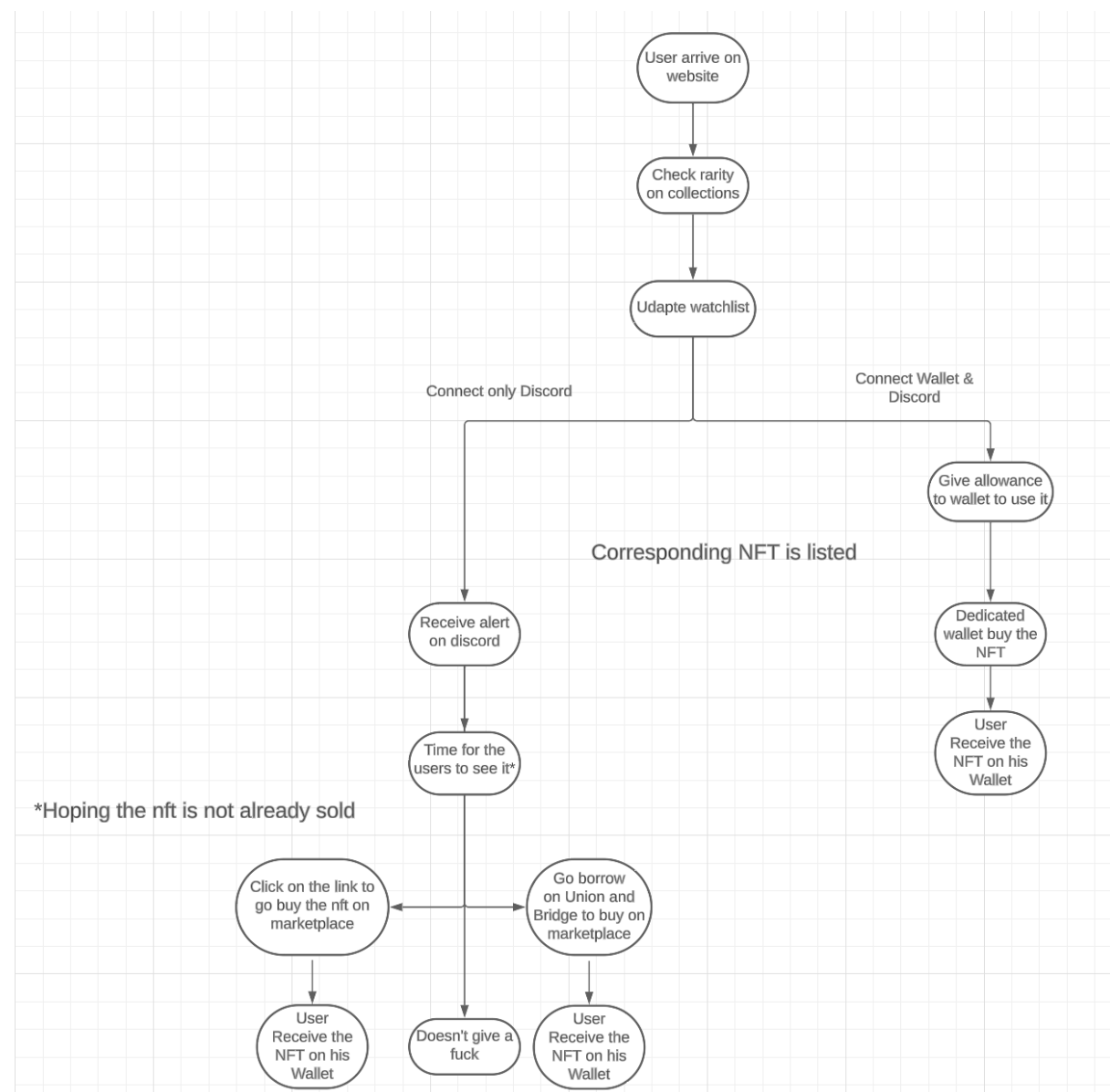
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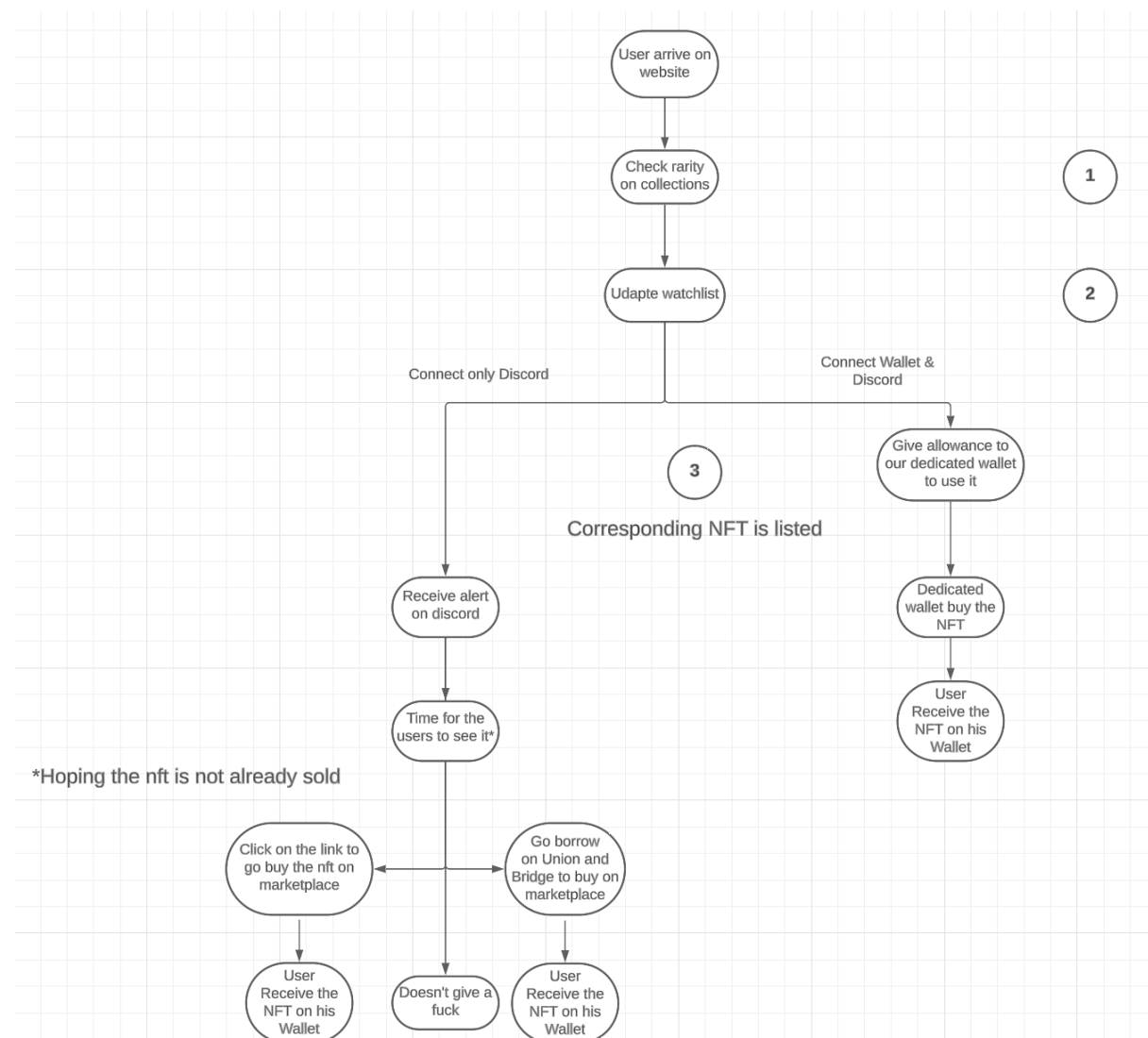
1/ Rarity Score Calculation

To create an intuitive and transparent ranking system, we compute a rarity score for each NFT within every collection.

Our algorithm parses through the metadata associated with each NFT. By assessing these diverse characteristics, we determine the rarity of each token. The resultant rarity score allows users to easily compare and assess the value of NFTs inside various collections.

2/User Customization and API Interaction

Our application is designed with user experience in mind. To ensure a highly personalized experience, users are able to specify their desired rarity score and maximum price parameters. Once these parameters are set, the frontend of our application communicates with the backend via an API request.

This user customization enables targeted alerts, ensuring users only receive notifications that are highly relevant to their preferences. This greatly simplifies the task of sifting through the expansive NFT marketplace.

3/On-chain Indexing and Database Comparison

Our solution incorporates a dedicated indexer that continuously scans for new listings on the blockchain.

When a new NFT is listed that matches a user's watchlist, the indexer immediately compares the details with our existing database. If there's a match, it instantly triggers the next step, whether that is sending an alert to the user or initiating the automatic purchase process.

By monitoring the blockchain in real-time, we provide users with the most up-to-date information, helping them to act swiftly in the highly competitive NFT marketplace.

Together, these technical elements form the foundation of Sniffer.

VI) BUSINESS PLAN

Our revenue streams are two-fold, carefully designed to align with our services.

1/Referral Fees from Marketplaces:

When our users receive an alert via Discord about a newly listed NFT that matches their preferences, the alert includes a link that directs them to the marketplace hosting the NFT. We have agreements with these marketplaces to receive a referral fee for every purchase made through these links. This arrangement is a win-win for all involved: users can easily access their desired NFTs, marketplaces gain traffic and potential sales, and we earn revenue to continue improving and expanding our services.
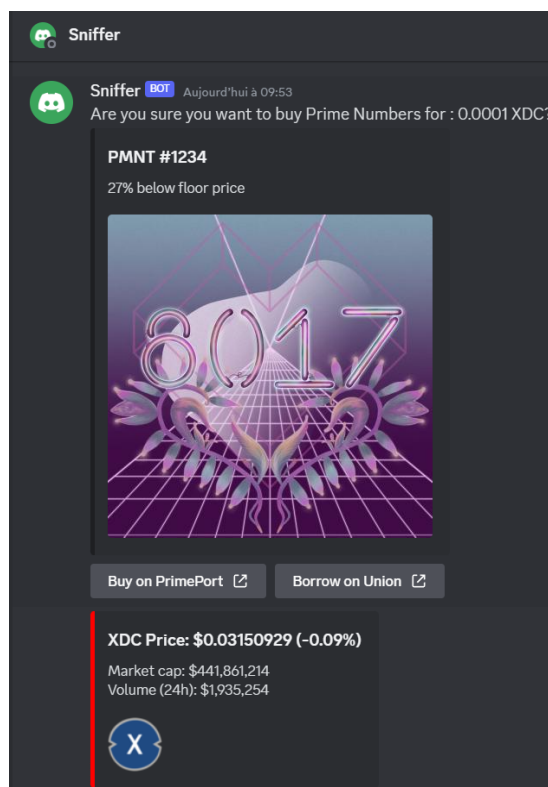
2/Fees from NFT Sniping :

Our automatic NFT sniping feature ensures our users never miss out on their desired NFTs, even in the most competitive environments. For this premium feature, we charge a 20% fee. This fee is calculated on the difference between the price paid for the NFT and the price of NFTs with similar rarity available on the market, up to the maximum price set by the user for the original purchase. If no similar rarity NFTs are available for comparison, we charge a flat 5% fee on the price of the sniped NFT.

These two revenue streams not only support our ongoing operations and enhancements, but also reinforce our commitment to providing valuable services to our users. By aligning our revenue model with our users' success, we ensure a sustainable and customer-centric business that benefits all stakeholders in the NFT ecosystem.

VII)ADDITIONAL FEATURES

Alert on XDC & XRC-20 tokens :

Our innovative technology is not limited to the world of NFTs. It is at the heart of our ability to retain our users, offering adaptability and versatility that enable a wide range of functionalities.

In addition to our dedicated NFT services, we also offer functionality for more traditional tokens such as XDC and XRC-20. Our proven tracking and alerting technology allows our users to receive real-time alerts on price fluctuations of these assets. These alerts are delivered directly to Discord or Telegram, providing users with essential information where they need it most.

This extensive range of services reinforces our commitment to our users, offering a panoply of tools to effectively navigate the crypto-asset market. By continually adapting our technology to meet users' needs, we ensure their loyalty while positioning ourselves as an indispensable tool for digital asset management.

VIII) DRAWBACKS & NEXT STEPS

Here are some of the main areas we have identified for improving our solution after this MVP :

- **User selection for Sniping :**
  As things stand, if two users have defined the same conditions for sniping, the choice between the two is random. In the future, we plan to implement a priority system based on order of arrival, where the conditions of the first user to have submitted them will be executed first.

- **Sniping based on Specific Conditions:**
  Currently, our sniping service is based solely on the NFT rarity score. In future versions of our solution, we plan to extend this functionality to allow sniping based on specific conditions defined by the user.

- **Securing and decentralising sniping:**
  For the hackathon, we implemented a functional MVP in which users deposit their funds into a dedicated wallet that manages the sniping of the NFT. However, to enhance security and transparency, we plan to decentralise this process by governing it with a smart contract. This contract will itself be subject to strict rules, using the user's funds only if the conditions it has defined are validated.

- **Automatisation of the obtention of a loan with Union finance :**
  Currently, when users do not have the funds to acquire an NFT when an alert is triggered, we provide them with the link to obtain an uncollateralized loan via their Union account. Looking ahead, we intend to automate this loan process. In this way, users will be able to set up their accounts to automatically trigger a loan when their predefined conditions are met.

  In addition to simply automating the lending process, our aim is to automate the entire process of transferring funds from Union to the NFT marketplaces on XDC. The route will be

as follows: after obtaining a loan on Union in DAI, these funds will be exchanged into USDT. They will then be bridged to the Polygon blockchain, and finally bridged to XDC, enabling the purchase of NFTs on the marketplace.

These and other improvements are designed to enhance the user experience, strengthen security and make our solution even more efficient and reliable. They reflect our commitment to innovation and user satisfaction.

IX) ROADMAP

ROADMAP - First Phase

July 2023	August 2023	September 2023	October 2023
• **Smart Contract** for Sniffer Sniper	• **Automation** of uncollateralized **lending with Union finance**	• **Security Audit** of Trading Sniper	• Development around **mobile application**
• **Customization** of ranking parameters	• Launch of **Sniffer Alert**	• Release of **Dashboard analytics**	• Integration of **other Social Media** for Sniffer Alert
• **Automation of Trading alert** to Trading Sniper	• **Customization of Sniffer Sniper** parameter	• Release of **Sniffer Sniper**	
	• **Security Audit** of Sniffer Sniper		

X) CONSLUSION

Using our sophisticated algorithm, we assign a rarity score to each NFT in all collections, allowing users to quickly and accurately assess the value of NFTs on the market. Our customisable alert system, combined with automatic sniping capability, gives users a significant advantage in acquiring NFTs in real time, even in the most competitive markets.

In addition, our solution extends beyond the world of NFTs, with dedicated functionality for more traditional tokens such as XDC and XRC-20. Users can receive alerts on Discord or Telegram about price fluctuations of these assets, allowing them to react quickly to market changes.

However, this is just the beginning. We plan to continually improve and expand our service by introducing new features and refining our processes to provide an even better experience for our users.

By being the first to offer such a combination of services, we are revolutionising the way users interact with the NFTs and crypto-currency market. We are proud to be leading this innovation and look forward to seeing how our solution will continue to evolve and shape the future of digital asset management.