White Paper

# NEXT GENERATION OF DIAMONDS!

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## <u>Diamond NXT</u>

## **Eternal Gemstones, Reimagined**

Digital disruption continues to impact every industry, and precious stones are no exception. Diamond NXT is thrilled to announce our pioneering initiative, marrying the immutable power of tokenized blockchain assets with the timeless value of real-world diamonds.

Diamond NXT is redefining the diamond industry through physicalbased, non-fungible digital certificates. Trading can occur instantly and at a fraction of current costs using the Diamond NXT Platform. Diamonds are becoming liquid instruments with our worldclass approach to new technology and integrity. A valuable and historically proven asset class has never been primed for digital disruption quite like the diamond industry.





Join us on this exciting journey. In this paper, we unveil the future of diamonds and inaugurate a new chapter in the precious stone industry. We offer you the opportunity to be part of this groundbreaking project that seamlessly blends the time-tested utility of diamonds with the power of emerging technology like blockchain.

'This crypto-asset white paper has not been approved by any competent authority in any European Union Member State. The issuer of the crypto-asset is solely responsible for the content of this crypto-asset white paper.'

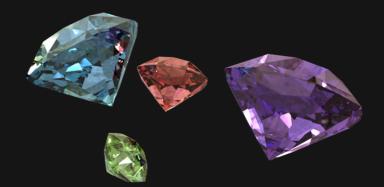
## Introduction



In a world brimming with digital innovation, the diamond industry remains rooted in its analog traditions. While noble and proud, their innate inefficiencies have become increasingly apparent in our modern digital society. Diamond NXT bridges the gap between tradition and modernity with our robust diamond tokenization platform. We leverage the latest technology to provide the seamlessly luxurious experience expected of the precious stone market with modern efficiency and utility found in modern financial applications.

### **Background and Challenge**

Diamonds are well-established symbols of wealth and luxury and hold a substantial place in the global economy. However, the industry is characterized by supply chain inefficiencies, market opacity, and accessibility challenges. As a result, diamond trading remains inaccessible to most investors, intrinsically limiting the market size and reach.



Digital certificates of hard commodities are familiar and have delivered significant efficiency benefits since the advent of the Internet. However, a new generation of distributed technology has the potential to imbue physical assets like diamonds with unique and immutable digital identities. Diamond NXT uses these technologies to facilitate deeper liquidity, greater market transparency, and unprecedented global transaction finality.

## <u>Challenges</u>

Three primary challenges currently define the conventional diamond industry. While non-exhaustive, these problems have deterred the growth and modernization of diamond trading for a wider segment of potential consumers and investors.

- Supply Chain Opacity
- Intermediary Inefficiency
- Liquidity Challenges

## Supply Chain Opacity

The diamond industry needs to work on transparency and traceability. Many of the world's diamonds come from diverse sources, leaving room for fraud, the circulation of low-quality diamonds, and the entry of conflict diamonds into the market.



Proof of origin steps have become standard in the industry. While compliance with regulations such as KYC, AML, and data protection laws helps, they leave much to be desired. The inability to directly disempower bad-acting intermediaries leads to a challenging cycle to break. A distributed ledger on a decentralized network would greatly decrease the cost of proof of origin compliance steps and remove the ability of intermediaries to extort their role in the supply chain.



## Intermediary Inefficiency

The traditional diamond trade is slowed and made more costly by the involvement of numerous intermediaries. Many of these traditional roles are crucial, but they remain disconnected. Nevertheless, the industry knowledge they contain remains invaluable.

This complexity increases transaction costs and decreases overall efficiency, affecting the profitability and growth of the industry.

These costs help grow the already large barrier to entry faced by the diamond market. The high barriers to entry restrict its accessibility to a select few individuals and institutions with sufficient capital to buy meaningful volume. This limitation reduces the potential market size and hinders the democratization of diamond trading.

## Liquidity Challenges

This lack of democratization leads to a significant lack of liquidity in the market. Diamonds are typically illiquid assets, making them difficult to sell quickly without losing a significant portion of their value. This lack of liquidity can deter potential investors, limiting the growth of the diamond investment market in a Catch22 scenario.

The lack of fractional ownership in the diamond market serves the interests of the existing intermediaries rather than the market itself.



The lack of an effective way to own or trade parts of a diamond restricts the market's accessibility to a larger audience.

## **Diamond NXT Solution**

Diamond NXT brings a digital platform to market purpose-built for the future of diamond trading and investing. Our solution delivers:

- Supply Chain Transparency
- Immediate Transaction Routing
- Accessing Your Diamond's Liquidity

## Supply Chain Transparency

Diamonds hosted on the Diamond NXT platform are subject to industry-grade reporting standards regarding proof of origin, chain of custody, and ownership history. By collocating all relevant information about these precious stones in one place and storing them on an immutable ledger,



Diamond NXT ensures that no interested party can maliciously manipulate the record to their benefit.

Using our revolutionary standards for transparency and information accessibility, the same benefits of immutability accrue to diamond producers. Producers can significantly differentiate their diamonds' quality and integrity by reliably attesting the diamonds produced from their operations and showing the value chain from extraction to delivery.



## Immediate Transaction Routing

The many intermediaries in the diamond industry can make the process feel like an ancient ritual more than a financial transaction. At smaller scales, discerning the true origin of a diamond is next to impossible due to the number of times the stone changes hands. While the supermajority of industry actors do so in good faith,

the additional processing times and potential for fraud make this configuration untenable over the long term.

Diamond NXT offers immediate settlement times, allowing you to transfer the legally binding digital certificate representing your stone and receive payment without the hassle of multiple mediators. This assured approach allows any owner or buyer to agree on the terms of the potential deal, corroborate the facts about the stone, and execute the transaction accordingly, all without meeting in person or leaving their living rooms.

## Accessing Your Diamond's Liquidity

Without sufficient liquidity, the diamond market will remain comparatively small. Diamond NXT is the first platform allowing you to fractionalize your diamond into non-fungible pieces. Keep your precious stone physically safe while using a digital hammer to break open new frontiers of value and liquidity for your assets.

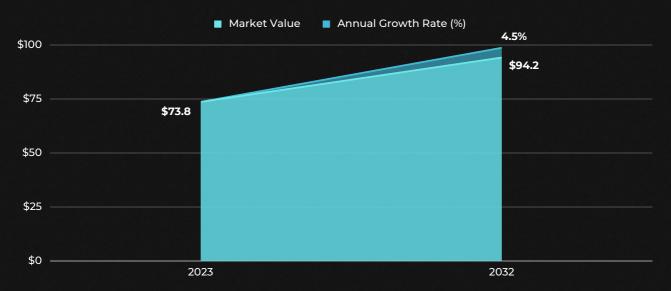
This configuration empowers a new generation of buyers, allowing anyone to diversify their investment portfolio with diamonds.

The liquidity facilitated by Diamond NXT supports diamonds as an investable asset class for anyone, empowering you to invest like the ultra-rich without needing to consider slippage.

## Market Overview

### **Diamond Market**

The natural industry is a highly lucrative and dynamic market, with a global value estimated at around \$73.8 billion. This figure includes buying, selling, and trading rough and polished diamonds and cutting and polishing rough diamonds into finished gemstones for the consumer markets. The market expects a 4.5% annual growth rate, resulting in a \$94.2 billion total market size by 2032.



The market is dominated by a few major players who control a significant portion of the diamond supply chain, from mining and extraction to distribution and retail sales. Most diamond production comes from countries like Russia, Botswana, and Canada, although there are also significant producers in Australia and South Africa.



### **Blockchain Market**

Distributed ledger technology markets like blockchain are still incredibly new compared to the rich history of the precious stones industry. Despite their recent arrival on the scene, 2021 saw over \$100 billion in value locked in various blockchain protocols, with daily volumes reaching over \$10 billion at previous peaks.





\$ billion

Blockchain boasts an incredible compound annual growth rate of over 80%, placing it among the ranks of the fastest-growing sub-sectors in the world. With a market size of only \$10 billion by today's measure, the chaotic booms and bust cycles are partly fueled by the technology's revolutionary and diverse applications across many industries.

## Non-Fungible Tokens (NFTs)

Non-fungible tokens (NFTs) have entered the mainstream in the 2020s. These assets can be compared to precious stones: while they can share characteristics, they're diverse and unique from one another in their rights. Unlike Bitcoin, NFTs can represent anything from collections of digital art to fractional shares of precious metals and companies. The power of this asset class comes with its ability to split larger assets into smaller subset assets.



A real-world example of this might be the Lourve requiring money to renovate a gallery wing. If they turn the Mona Lisa into a collection of one million NFTs, anyone with a winning bid can own a piece of this timeless, priceless work of art. While fractional shares of the Mona Lisa aren't planned any time soon, the implications of this technology are easy to observe and hard to overstate.

## DeFi (DeFi)

Decentralized Finance (DeFi) is where the architectural rubber of blockchain meets the financial road. DeFi refers to platforms that offer various services, such as lending and borrowing, trading, and investing, all powered by blockchain-based smart contracts. DeFi markets have already begun to reshape the traditional financial system by promoting financial inclusion and accessibility.

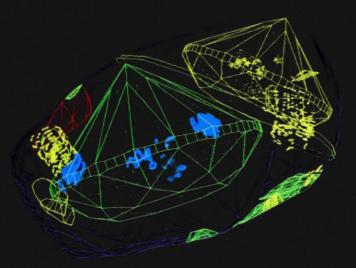
The highly accessible and interoperable nature of DeFi makes it a 24/7 global marketplace for any asset in the world. While it is crucial to incorporate regulatory compliance measures when interfacing with DeFi markets, the intersection of compliance and innovation offers immense opportunity in the coming years.



As DeFi markets continue to involve and incorporate traditional financial assets, diamonds will inevitably tread the exciting road of financial modernization and global market inclusion. Diamond NXT is proud to pioneer this effort.

## Diamond NXT Platform

Diamond NXT delivers a modern financial application built on blockchain technology, allowing anyone to tokenize their real-world diamond assets. Our unique approach empowers diamond buys, sellers, and traders with unprecedented opportunities by combining diamond markets with the transformative power of decentralized finance and non-fungible tokens. Diamond NXT bridges these two worlds and revolutionizes how people buy, sell, and invest in diamonds.



## <u>Roles and Functions</u>

The Diamond NXT Platform has four unique roles that users can fill. Account types are not specified, so one user can fill one or multiple roles with the same account. The roles are as follows:

## Minter

A minter is any user who mints a Diamond NFT on the Diamond NXT platform. Minters must first undertake a registration and KYC process before qualifying for minting. Once verified, minters provide evidence for their diamond(s). Finally, the platform scans a 3D model of the diamond and issues a token URI unique to that Diamond NFT.



### Buyer

A buyer is any user who purchases a whole or fractional Diamond NFT on the platform.

### Seller

A seller is any user who sells a whole or fractional Diamond NFT on the platform.

### Redeemer

Anyone redeeming a Diamond NFT for a physical diamond.

## Diamond NFTs

Diamond NXT uses NFTs to represent physical diamonds, giving them a digital identity that can be easily traded or stored as an asset. Each NFT has an immutable record that maintains information about a diamond's origin, ownership, and transaction details. This approach creates transparency in the diamond supply chain and ensures that each diamond is unique, genuine, and conflict-free.

### Attributes

The Diamond NFT tracks all the attributes relevant to a diamond, representing the unique physical characteristics of the diamond on a one-toone- digital scale. The attributes stored in the Diamond NFT are:



### Carat Weight

Carat refers to the weight of the diamond, not how large the stone is. A 1 carat diamond equals 200 milligrams, or 0.2 grams

### Cut

The 'Cut' is perhaps the most important aspect of a diamond quality that impacts a diamond's beauty. Diamond cut specifically refers to the quality of a diamond's angles, proportions, symmetrical facets, brilliance, fire, scintillation and finishing details.

These factors directly impact a diamond's ability to sparkle, along with its overall aesthetic appeal.

### Clarity

Diamonds can have internal characteristics known as inclusions or external characteristics known as blemishes. Diamonds without inclusions or blemishes are rare; however, most characteristics can only be seen with magnification.

### Color

Color refers to the natural tint inherent in white diamonds. In nature, most white diamonds have a slight tint of yellow. The closer to being "colorless" a diamond is, the rarer it is. The industry standard for grading color is to evaluate each stone against a master set and assign a letter grade from "D" (colorless) to "Z" (light yellow).

### Shape

The physical shape of the diamond (e.g., round, princess, oval, etc.).

### Symmetry

How well the facets of a diamond align and interact with each other. It evaluates the precision and balance of the diamond's cut. Diamonds with excellent symmetry exhibit a high level of symmetry and are considered more valuable.

### Fluorescence

Refers to the diamond's tendency to emit a soft glow when exposed to ultraviolet (UV) light. Some diamonds exhibit fluorescence, ranging from none (no fluorescence) to faint, medium, strong, or very strong fluorescence. The presence and intensity of fluorescence can affect the appearance and value of a diamond.

### **Certificate** Issuer

Refers to the laboratory or authority that graded the diamond and issued the certificate.

### Certificate Number

A unique number given to a diamond by the grading authority or lab. It indicates the characteristics of the diamond.

Accurately tracking these attributes is key when tokenizing diamonds because they define the quality, and thus the value, of a diamond. By tokenizing diamonds into NFTs, each diamond can be represented digitally with unique characteristics and fundamentally prevent fraud at every level. This approach provides provenance and ownership tracking, bringing transparency and liquidity to the diamond market.















## <u>Minting Process</u>

The Diamond NFT minting process is crucial to the Diamond NXT Platform. Diamond owners can easily convert their physical diamonds into unique, tradable NFTs, accessing unprecedented liquidity and financial opportunity derived from their underlying value. The process is straightforward, and all participants minting a Diamond NFT must undergo a thorough confirmation process to ensure quality standards are rigorously maintained. The steps are as follows:

### **Diamond Owner Registration**

The diamond owner needs to register on the Diamond NFT Platform and complete the KYC (Know Your Customer) and AML (Anti-Money Laundering) checks.

### **Minting Request**

A minting request, including a valid diamond certificate from a trusted thirdparty gemological institution, is submitted. The professionals at Diamond NFT review the request and contact the diamond owner to provide further instructions on sending or delivering the diamond to the designated location for verification.

### Diamond Verification and 3D Scanning

The diamond is corroborated against the provided certificate and scanned to produce a 3D stone model. This scan serves as the visual representation of the Diamond NFT.

### **Token URI Generation and NFT Minting**

A unique token URI containing metadata about the diamond's characteristics, certificate, and other relevant details, as well as the 3D scan, is generated. The Diamond NFT smart contract then mints the new Diamond NFT. The diamond owner is notified that the minting process is complete, and the recipient address is confirmed.

### **Custody and Minting Finalization**

The physical diamond remains secured and insured in the third-party custodian's vault. Meantily, the NFT, complete with its 3D representation, is now a unique, tradable asset on the Diamond NFT Platform.

## <u>Asset Custody</u>

The custody process is central to the Diamond NFT ecosystem. A trusted third party ensures the secure storage and management of the physical diamonds representing the Diamond NFTs on the platform. The third-party location has state-of-the-art security measures, including 24/7 surveillance, biometric access controls, and advanced alarm systems. This degree of security ensures that the diamonds are protected from theft, damage, and other potential risks. Moreover, the diamonds in custody are tracked using Radio Frequency Identification (RFID) technology.

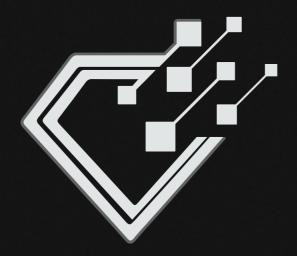
This approach allows for real-time tracking and verification of the diamonds, providing additional security and transparency.





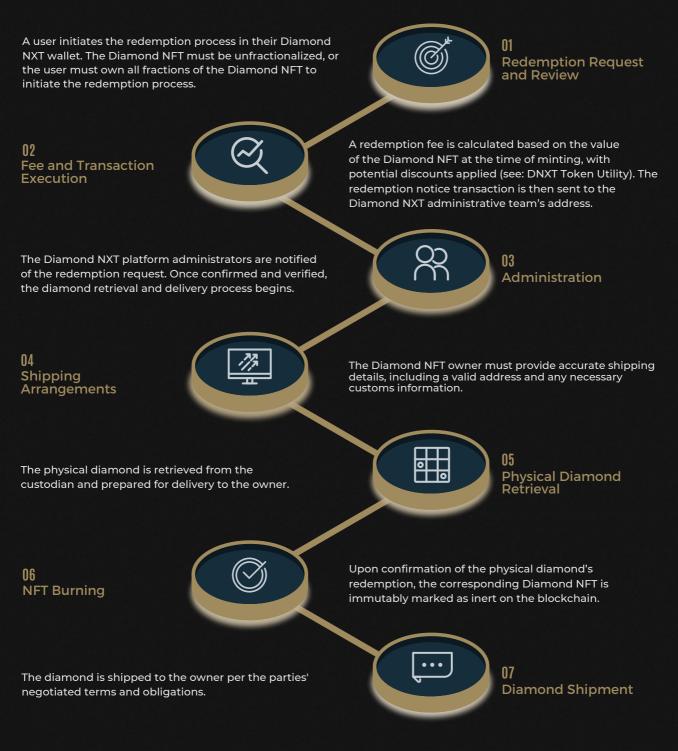
Most importantly, using a third-party custodian allows the diamonds to be insured. A comprehensive insurance policy provides a definitive layer of protection for diamond owners. In the unlikely event of any loss or damage, the insurance coverage ensures that the diamond owners are compensated fully for their lost or damaged assets.

This custody process provides peace of mind for Diamond NFT holders and plays a crucial role in the redemption process. By entrusting the custody of the diamonds to a specialized third party, we ensure the highest level of security and integrity backing our Diamond NFTs. This robust custody process is a testament to our commitment to providing a secure, transparent, and reliable platform for trading and investing in physical diamonds.



## <u>Redemption Process</u>

The Diamond NFT redemption process allows owners to exchange their Diamond NFTs for their corresponding physical diamonds. A redemption is effectively a reversing of the minting process. Here's an overview of the process:



By following these steps, the Diamond NFT redemption process allows NFT owners to exchange their unique digital assets for the corresponding physical diamonds, providing a valuable exit strategy for those who wish to retake custody of their tangible asset.

## **DNXT Token**

The DNXT token is an important part of the Diamond NXT ecosystem. Built on the Polygon blockchain, DNXT offers a wide range of benefits, including redemption discounts, speculative potential, and broad compatibility with existing decentralized applications (dApps) and platforms.

### DNXT Token Utility

The DNXT token boasts several utilities and helps differentiate the Diamond NXT ecosystem. A non-exhaustive list of DNXT token utilities are:

#### **Define Your Audience**

Holding DNXT tokens in your wallet entitles you to redemption discounts when converting Diamond NFTs into physical diamonds. The discount schedule is as follows:

- 100 DNXT  $\rightarrow$  0.3% discount  $\rightarrow$  5.7% fee
- 1,000 DNXT  $\rightarrow$  1% discount  $\rightarrow$  5% fee
- 10,000 DNXT + 2% discount + 4% fee
- 100,000 DNXT + 4% discount + 2% fee
- 1,000,000 DNXT → 6% discount → 0% fee

#### Payment

DNXT token will be accepted for promotions and advertisement in the Diamond Next platform, offering an external force that underpins the token and helps support the entire DNXT ecosystem.

#### Rewards

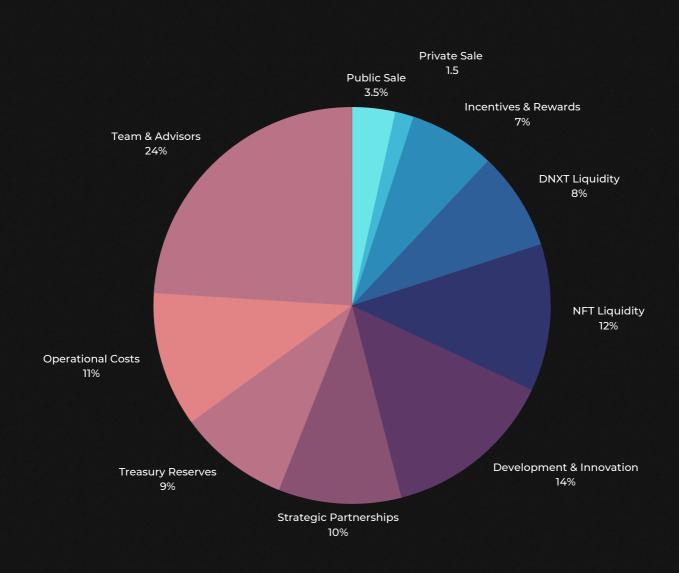
The platform's incentive and rewards program uses DNXT tokens as the reward currency. Users can earn DNXT tokens for participating in platform activities, contributing to the community, or fulfilling certain tasks or challenges.

### Staking

DNXT token holders can stake their tokens to earn rewards. The calculation of staking rewards is based on the user's staked token balance relative to the total staked supply. Rewards are distributed periodically and can be additional DNXT tokens or other incentives. Detailed information on the staking rewards program will be released alongside the staking program launch.

## <u>Tokenomics</u>

The total supply of DNXT tokens is capped at 100,000,000, ensuring a finite supply of tokens over the platform's lifetime. The distribution of DNXT tokens is configured to reward the maximum number of contributing users and grow the platform sustainably over the years to come. Each allocation is outlined below:



### Public Sale (3.5%)

A small portion of the DNXT tokens is allocated for public sale, allowing a wide range of investors to participate in the project from the early stages.

#### Private Sale (1.5%)

A set of DNXT tokens has been reserved for a private sale, which will be available to selected early investors and strategic partners.

#### Incentives & Rewards (7%):

These tokens incentivize user engagement and reward participation within the ecosystem, driving platform growth and fostering a vibrant community.

#### DNXT Liquidity (8%):

This allocation is dedicated to maintaining sufficient DNXT liquidity in the market. A portion of these DNXT tokens will be allocated to liquidity pools on decentralized exchanges, while the remaining tokens will be reserved to enhance liquidity on centralized exchanges. This strategic approach aims to facilitate seamless trading of DNXT tokens and ensure a healthy market environment for investors and users.

#### NFT Liquidity (12%):

We allocate significant resources to maintain liquidity for diamond NFTs within the platform. This allocation ensures a robust marketplace for traders, facilitating smooth buying, selling, and trading of diamond NFTs.

#### **Development & Innovation (14%):**

A significant allocation of DNXT tokens is reserved for ongoing platform development and innovation and to facilitate future technological advancements.

#### Strategic Partnerships (10%):

DNXT tokens are earmarked for forming strategic partnerships, ranging from collaborations with other blockchain projects to partnerships with entities in the diamond industry.

#### **Treasury Reserves (9%):**

A portion of the DNXT tokens is kept in reserve to ensure the project's financial stability and ability to manage unexpected market conditions.

#### **Operational Costs (11%):**

This allocation will cover operational expenses, including marketing, legal, and other operational costs, to ensure the smooth functioning and growth of the platform.

#### Team & Advisors (24%):

The team and advisors, who are critical to the project's success, receive the largest allocation. This allocation includes incentives for their hard work and dedication to the project.

## <u>Technical Details</u>

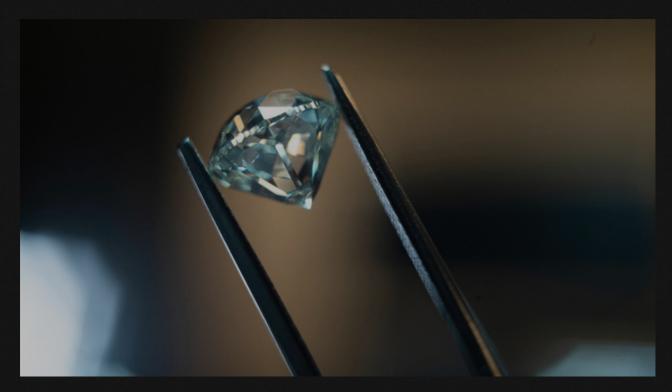
### **Operational Functionality**

Diamond NXT uses a wide array of smart contracts to underpin the platform. While operating in an entirely decentralized environment, the regulatorycompliant nature of the Diamond NXT platform entails the need for access and risk control frameworks and systems that sufficiently protect client assets.

To ensure the highest level of security and responsiveness, the DNXT platform incorporates the Pausable contract feature within the DNXT Master Contract. This feature allows the platform to pause certain functions of the DNXT and Diamond NFT smart contracts in the event of an emergency, such as a detected software vulnerability or an attack on the system, according to the "Safe termination and Interruption" requirements for smart contracts.

Additionally, Diamond NXT employs a well-designed access control system to maintain the highest level of protection. By implementing the AccessControl contract, Diamond NXT ensures that certain platform functionalities are accessible only to specified roles.

Our access control system assigns roles like the PAUSER\_ROLE, among others, with each role having unique permissions. For example, addresses with this role can pause and unpause the Pausable functions of the DNXT and Diamond NFT smart contracts. This tiered role structure ensures that trusted and verified users can execute sensitive functions only.



## <u>Smart Contract List</u>

The DNXT token is an important part of the Diamond NXT ecosystem. Built on the Polygon blockchain, DNXT offers a wide range of benefits, including redemption discounts, speculative potential, and broad compatibility with existing decentralized applications (dApps) and platforms.



## NXT Master Contract

The DNXT Master Contract manages the rules and conditions for the DNXT tokens, representing a stake in the Diamond NXT ecosystem. This smart contract remains compliant with relevant jurisdictional laws and regulations.

### Payment

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The Diamond NFT contract creates, manages, and tracks Diamond NFTs. It handles the creation of new diamond NFTs and their burning during redemption.

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### Rewards

The Whitelist contract ensures that only approved users can execute transactions within the Diamond NXT platform. It prevents fraud and improper transaction execution by non-verified parties.

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#### Redeem

The Redeem contract handles redeeming diamond NFTs for physical diamonds. The contract also interacts with the Staking System to provide discounts for users who have staked DNXT tokens.

## Staking

The Staking contract allows users to lock their DNXT tokens in the Diamond NXT platform in return for platform rewards and benefits, such as discounts on diamond redemptions.

## <u>Regulatory Compliance and</u> <u>KYC/AML</u>

DNXT understands our role in complying with the regulatory standards that govern blockchain technology and diamond trading. We undertake rigorous KYC/AML standards procedures to ensure compliance in all relevant jurisdictions, including:

- Securities and Exchange Commission (SEC)
- Commodity Futures Trading Commission (CFTC)
- Financial Crimes Enforcement Network (FinCEN)
- 5th Anti-Money Laundering Directive (5AMLD)
- Markets in Crypto Assets (MiCA)

DNXT remains committed to fully complying with these international KYC and AML regulations.

### Whitelist Process

DNXT employs a robust whitelist system, enhancing security by permitting only authorized ('whitelisted') addresses to execute transactions on the platform.

The components of this system include:

#### Whitelist Contract

The Whitelist contract forms the core of our system, facilitating the whitelisting of addresses. These operations are overseen by designated users with the WHITELISTER\_ROLE, enhancing robustness against unauthorized manipulation or functional errors.

#### **Application Process**

To initiate this process, users seeking to buy, sell, or mint Dlamond NFTs must submit the necessary details to our KYC/AML provider.

### Whitelisting Criteria

Successful verification by the third-party KYC/AML provider permits the user to transact within the Diamond NXT ecosystem.

### Automatic Onchain Whitelisting

Once the KYC/AML provider completes the verification process, the Whitelist System automatically adds the address to the Diamond NXT whitelist on the blockchain, ensuring transparent compliance.

#### **Security Measures**

All data attested to the blockchain is encrypted using military-grade encryption standards, ensuring that only the user and Diamond NXT can access the relevant KYC/AML data and corresponding onchain information.

#### **Review Process**

Our commitment to compliance involves continually reviewing the Whitelist contract, random audits of whitelisted user KYC/AML documents, and regular monitoring for suspicious or structured activities. We work closely with the third-party KYC/AML provider to ensure the whitelist's accuracy and relevance, contributing to the security and integrity of our platform.

By integrating these mechanisms into the platform's smart contracts, DNXT aims to maintain a secure, reliable, and compliant environment for digital asset transactions.

