

# Galileo - Product Suite

## Intro

This documentation provides an overview of the system's key components, including roles, the tokenisation platform, the marketplace, and the token tracker. It outlines how these components streamline brand onboarding, NFT minting, metadata control, and marketplace availability. The tokenisation platform focuses on creating and distributing pNFTs, while the marketplace facilitates the buying, selling, reselling, and redeeming of pNFTs. The token tracker ensures transparency by tracking metadata changes and verifying associated documents. Additionally, the system assigns a unique serial number to each pNFT for traceability, ownership tracking, and authenticity verification. The wallet-to-wallet messaging feature enables direct communication and query addressing among users for efficient collaboration.

## Roles

The system incorporates a range of roles to carry out its operations effectively. These roles play distinct functions and contribute to the system's overall functioning. The system ensures proper organisation and seamless workflow by assigning specific responsibilities and permissions to each part. The roles within the system are carefully designed to cater to different tasks, ensuring a well-structured and efficient operation.

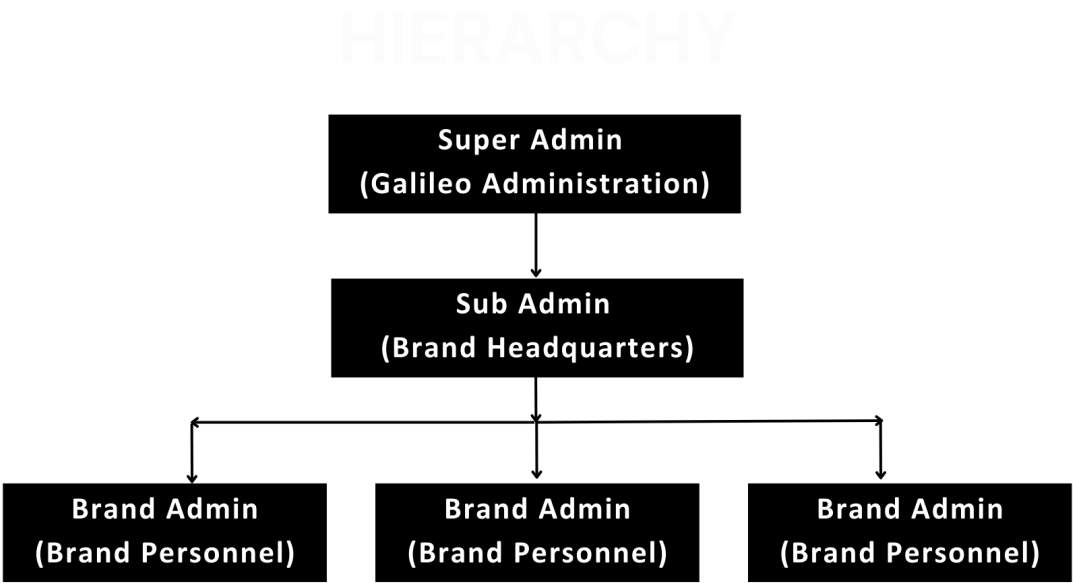


Fig 1.1 Roles

# Permissions

## 1. Super Admin

- Responsible for onboarding brands onto the platform.
- Creates and manages Sub Admins.
- Creates and manages Brand Admins.

## 2. Sub Admin

- Approves or rejects minting requests for NFTs.
- Performs the minting of approved NFTs, making them available in the marketplace.
- Has the ability to create additional Brand Admins.

## 3. Brand Admin

- Requests the minting of NFTs.
- Controls the metadata update for the NFTs associated with their brand.

These roles work together to ensure a streamlined process for brand onboarding, NFT minting, metadata control, and marketplace availability.

# Tokenisation Platform

The Tokenisation Platform is dedicated to creating and distributing programmable Non-Fungible Tokens (pNFTs). It is a centralised hub where users can tokenise various digital assets and manage distribution. The platform's primary focus is enabling seamless generation and widespread availability of pNFTs across different marketplaces.

## Primary features

### 1. Minting pNFTs directly to a wallet:

- a. This feature allows the system to create and distribute physical Non-Fungible Tokens (pNFTs) directly to a user's wallet.
- b. Enables the seamless generation of unique digital assets and their transfer to individuals securely.

### 2. Controlled updates of metadata:

- a. The system provides a mechanism to manage and update the metadata associated with pNFTs.
- b. Ensures that essential information, such as attributes, can be modified or enhanced over time, providing flexibility and relevance to digital assets.

### 3. Cross-platform viewability of the pNFTs:

- a. The pNFTs created through the system can be viewed and accessed across multiple platforms.
- b. Interoperability allows users to showcase and interact with their digital assets within the system's environment and on external marketplaces like Galileo, Opensea, Rarible, and more.

### 4. Unique Serial Number for each pNFT:

- a. Every pNFT generated by the system is assigned a unique serial number.

- b. This serial number serves as a distinctive identifier for the digital asset, enabling traceability, authentication, and potential scarcity verification for collectors and enthusiasts.

## Marketplace

Introducing a dynamic marketplace for programmable Non-Fungible Tokens (pNFTs), where users can explore and engage with a wide range of digital assets

### Primary Features

1. Showcase pNFTs:
  - a. The marketplace lists the pNFTs minted by the brands for sale.
  - b. Brands can showcase and sell their digital creations to interested buyers.
2. Selling, Reselling, and Redeeming pNFTs:
  - a. Once listed on the marketplace, pNFTs can be bought by interested buyers.
  - b. The platform also supports reselling pNFTs, allowing users to trade or transfer ownership for the agreed-upon price.
  - c. In addition, pNFTs can be redeemed by users, enabling them to claim the associated physical assets or benefits.
3. Transaction Handling:
  - a. When a pNFT is sold or redeemed, the transaction amount directly goes to the Sub Admin (Brand Headquarters).
  - b. This ensures smooth and transparent financial handling, providing a clear revenue stream for the brand.
4. Tracking Redeemed Products:
  - a. The platform includes a tracking system to monitor the status of redeemed products.
  - b. Users and brand administrators can track the progress of redemption, including stages like pending, delivered, etc.
  - c. This tracking mechanism enhances transparency and customer satisfaction by informing all parties about the redemption process.
5. Updating Redeemed pNFT Metadata:
  - a. Once a pNFT is redeemed, the platform allows for updating the metadata associated with the specific pNFT.
  - b. This enables adding relevant information, such as proof of redemption or any modifications to the asset's details.
  - c. Keeping the metadata updated ensures accurate representation and information about the NFT.
6. Personalised Notifications via Web3 (Work in progress):
  - a. The platform leverages Web3 technology to provide customised notifications to users.
  - b. Users receive real-time updates regarding their pNFTs, including sales, resales, redemptions, and metadata updates.

- c. These notifications enhance user engagement and keep them informed about the activities and changes related to their digital assets.

## Token Tracker

the platform records and monitors all metadata changes and corresponding documents, ensuring transparency and providing a comprehensive audit trail. Through a permission-based system, document verification is conducted during each metadata update.

1. Unique Serial No:
  - a. Users can establish a distinct and verifiable identity for their pNFTs by entering a unique serial number during the creation process.
2. Track Sale, Ownership, and Authenticity of pNFT:
  - a. The platform provides comprehensive tracking capabilities to monitor the entire lifecycle of a pNFT.
  - b. This includes tracking the sale transactions, recording changes in ownership, and ensuring the authenticity of the pNFT throughout its journey in the marketplace.
3. Track Metadata Changes and Corresponding Documents:
  - a. Every modification made to the metadata of a pNFT is meticulously tracked by the platform.
  - b. Enables users to record all updates and modifications made, ensuring transparency and accountability.
  - c. Allows users to associate relevant documents and files with the metadata changes, creating a comprehensive and organised documentation system.
4. Verify Documents During Each Metadata Update (Permission-Based):
  - a. The platform implements a permission-based document verification process to maintain the integrity and accuracy of the associated documents.
  - b. The platform collects the associated documents before any metadata update is finalised, ensuring that required records are linked to the pNFT.
5. Wallet-to-Wallet Messaging Feature - Query Addressing (Work In Progress):
  - a. The tokenisation platform facilitates seamless communication between users through its wallet-to-wallet messaging feature.
  - b. Allows users to communicate directly and address queries regarding pNFTs, enhancing collaboration, transparency, and efficiency within the ecosystem.
  - c. Users can interact with each other, seek clarification, and exchange information directly through their wallets, creating a streamlined and convenient communication channel.

## So far

The system described in this documentation offers a comprehensive solution for creating, managing, and distributing programmable Non-Fungible Tokens (pNFTs). The system

empowers brands and users to participate in the exciting world of programmable Non-Fungible Tokens, unlocking new opportunities and possibilities in the digital marketplace.