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| Title | NFT-DAO |
| Subject | Test Strategy |

Logo, company name

Description automatically generated

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| **Author** | Stephen Whitenstall |
| **Published** | 28/04/2021 |
| **Version** | 0 |
| **Licence** | Apache 2.0 |
| **HOLONS** | Development, Marketing, Governance, Standards. |

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# **Blockchain Test Maturity Model**

This is an adaption of KPMG’s **Blockchain Maturity Model oriented towards Test Maturity Models.**

**The challenge is adapting maturity levels to distributed autonomous organisations (DAO).**

# Maturity Levels

## Level 1 – Initial

Ad-hoc testing.

## Level 2 – Defined.

Testing does not start until products are completed, so the aim of testing is to compare products against requirements.

## Level 3 – Integration

Testing is integrated into a software life cycle,

## Level 4 – Management and measurement

Testing activities take place at all stages of the life cycle.

## Level 5 – Optimization

Testing process itself is tested and improved at each iteration.

# Risk Areas

Possible risk areas NFT-DAO may need to test.

## Access and user management

### 1.1 Management of cryptographic keys.

Transparency of policy etc

### 1.2 Unauthorized access of participants

How to handle unauthorised or fraudulent access.

Cardano Registry has a legal team looking at this in their area.

### 1.3 How to uniquely identify users.

DID to avoid duplicate identities in shared auctions etc.

## Authorization and provisioning management

### 2.1 Segregation of duties

Due diligence in assigning responsibility to stakeholders in NFT minting.

### 2.2 Incorrect authorizations

How to handle errors

### 2.3 Abuse of high privileged or over authorized users.

How to play fairly

## Data management

Data confidentiality

Data integrity

Data availability

## Interoperability

Integrating with legacy systems

For example, off-chain, web 3 and GitHub registry

## Scalability and performance

Repeats earlier issues above in 1 and 2 (management of cryptographic keys, unauthorized access of participants and uniquely identifiable users) at scale.

## Change management.

HOLON agreement on handover between tasks by all participants

Standards adoption in each HOLON

GitHub Version control: forking

## Privacy

Append-only data structure (?)

The ‘right to be forgotten’.

GDPR. (European Privacy Legislation)

## Security

Coherence of the consensus mechanism chosen.

the number and location of nodes

# **NFT Release Roadmap**

## Token

### Translate

Define token release as a User Acceptance Test.

### Marketing/Engagement

Communicate UAT Token Release

### Record

Capture UAT

### Data

Analysis

### Improve

Incorporate improvements.

## Token

## Token

# NFT Test Platform

Plutus Test Platform?

How to launch a token to the public on a test platform?

# **User Acceptance Testing**

## **Use Cases**

**How to design a test layer with token release.**

**What usability elements are being tested?**

**Development Support.**

## **Sign-Off**

User Surveys

Feedback