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# Foreword

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# Executive summary

# Introduction

# 1 Scope

The present document …

# 2 References

## 2.1 Normative references

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[i.2] etc.

# 3 Definition of terms, symbols and abbreviations

## 3.1 Terms

For the purposes of the present document, the [following] terms [given in ... and the following] apply:

## 3.2 Symbols

For the purposes of the present document, the [following] symbols [given in ... and the following] apply:

## 3.3 Abbreviations

For the purposes of the present document, the [following] abbreviations [given in ... and the following] apply:

# 4 Definition of a DAO

## 4.1 Foreword

The acronym DAO stands for Decentralized Autonomous Organization:

**Decentralized** – in a manner that it is managed through decentralized governance using tools that allow it to function without a centralized authority. Blockchain, DLT and PDL (which by themselves are common derivatives of blockchain) are often used as the tool enabling such decentralized governance.

**Autonomous** – in a manner that a DAO operates by itself and independent of involvement of external entities or powers. That does not mean that a DAO is disconnected from its surroundings and does not require certain resources from external sources (e.g., power supply, communication facilities) but it is able to perform its tasks in an autonomous manner without being influenced by external events or forces.

**Organization** – in a manner that corroborates to achieve goals defined by a multitude of entities (individuals, groups, companies or institutional bodies).

There are additional aspects to a DAO:

1. It is **collectively owned** by multiple entities. Some DAOs are owned by an equal split of ownership. Others allow differential split based on criteria such as amount of investment, amount of use, amount of assets/tokens etc.
2. It operates towards a **shared mission** defined collectively by the shared owners.

Operation using Blockchain allows:

1. **Automated functionality** using smart contracts.
2. Data is **immutable** (or resistant to change) and **non-repudiable**.
3. **Trust** between otherwise non-trusting entities.

It is often claimed that Bitcoin [i.x] was the first DAO, because it arguably meets the above criteria. While this may indeed be the case, there are additional uses for a DAO other than cryptocurrency and the current view of a DAO has taken a slightly different shape as described in section 4.2 herewith.

## 4.2 Current definition

The abstract definition of a DAO is a system that enables distributed decision making, management and ownership of assets.

The current implementations of DAOs are based on an operational model that requires:

A single ledger technology. Any type of ledger can be used (distributed or not) as long as it supports smart contracts (code executed automatically when certain conditions are met).

Non-proprietary codebase. The code may be open sourced (open and available to the public through a git) or partially open (open and available only to members in a consortium operating the DAO). One way or the other – there should not be elements of the codebase that are proprietary (meaning: can be executed by everyone but visible only to certain entities).

## 4.3 Current Implementations

DAOs are currently used for a multitude of purposes such as. While it is beyond the scope of the current document to discuss each implementation, the following list provides a glimpse to the variety of use-cases where a DAO can be used to offer a democratised solution to a service that would otherwise be operated centrally.

* Legal services (LexDAO)
* Venture capital (“The DAO”, BitDAO)
* Crowdfunding (UkraineDAO, ConstitutionDAO, MakerDAO)
* Shared interests and collaboration (Decentraland, “Friends with Benefits”, Aragon, PleasrDAO)
* CryptoCurrency trade (Uniswap, “Curve DAO”, DASH)
* Investment (Aave, Compound, HeadDAO, GnosisDAO)
* Governance (Aragon)
* Entertainment and Media (Flufworld)
* Social Networking (Blockster)
* DAO as a service (DAOstack, Aragon)

## 4.4 Differences between a DAO and traditional organizations

While traditional organizations operate in more than one manner table [x] herewith describes the main differences between a DAO and a traditional organization:

Table 1

|  |  |  |
| --- | --- | --- |
| Title | DAO | Traditional Organization |
| Hierarchy and structure | Flat, controlled through democratic vote of all participants | Centralized hierarchy controlled by a select entities. |
| Speed of decision | Fast. Flat hierarchy: everyone can decide (by vote) in parallel | Slow, Sequential approvals following hierarchy. |
| Voting | Any change has to be agreed through a democratic vote | A single or a subset of all entities may make decisions and changes without need for consent by entities affected by such change |
| Governance | The entire community governs the behaviour of the DAO | Select entities govern the behaviour of the organization |
| Transparency | All actions and decisions are transparent and visible to all participants (in public DAOs: visible to everyone). | Restricted visibility and transparency. Decisions may be kept confidential. |
| Operation and handling of events | Automated using smart contracts | Often requires manual processes |

# 5 Minimum requirements to operate a DAO

## 5.1 Foreword

This section will…

## 5.2 Minimum Requirements

### 5.2.1 Code Base

#### 5.2.1.1 Open Source

#### 5.2.1.2 Proprietary code

### 5.2.2 Chain type

### 5.2.3 Validating nodes

### 5.2.4 Neutral nodes

# 6 Operating a DAO

## 6.1 Foreword

## 6.2 Single Chain environment

### 6.2.1 Single Chain considerations

#### 6.2.1.1 Codebase

#### 6.2.1.2 Nodes

#### 6.2.1.3 Governance

## 6.3 Hybrid environment

### 6.3.1 Types of Hybrid environments

#### 6.3.1.1 Multi Chain

#### 6.3.1.2 Multi Vendor/Code base

### 6.3.2 Multi-chain

#### 6.3.2.1 Interoperability

##### 6.3.2.1.1 Data Interoperability

##### 6.3.2.2.1 Consensus interoperability

##### 6.3.2.3.1 Smart-Contract interoperability

### 6.3.3 Multi Vendor/Codebase

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## 7.8 Tokens in a Hybrid environment

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