DACC White Paper
Decentralized Accessible Content Chain

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Abstract

Decentralized Accessible Content Chain (DACC) is a platform that will revolutionize the digital content and media industry. DACC will establish a public blockchain that features ownership and access management at the infrastructure level in digital media industry. A decentralized file system that contains intrinsic identity and access management (IAM) will be implemented to give users and content creators methods to securely initiate, store, and manage access permissions to their data and IP. IAM ensures that only authenticated users can access the resources they are authorized to use, and resource owners will have full control over the user authentication and authorization process. Content creators, curators, and consumers will all be properly and fairly incentivated to build a community that places content creators at the center stage.

In addition to this underlying infrastructure, a full suite of developer tools will also be created which will allow any user or entity to easily build and develop content-related decentralized applications (DAPP's) for any digital media platform on top of DACC. DACC Foundation will also set aside a special fund, aka, community development fund via DACC labs, to incubate developer community to create innovative Dapps on DACC platform. DACC will revolutionize the digital media economy by innovative technology, distributed global community and special token model and reward system, which finally empower real creators in digital media industry.

Version History

- Version 0.1 - January 31, 2018
- Version 0.2 - February 9, 2018
- Version 0.3 - April 30, 2018
- Version 0.3.1 - May 31, 2018
- Version 0.3.2 - June 11, 2018

1. Background

1.1.Overview

The advancement of internet and network technology over the past decade has allowed for the rapid rise and global proliferation of digital content industry, mainly in three categories, IP data, user and network data. How platforms protect copyright and IP data remains a pointed topic of debate, with content creators pointing to annual content piracy revenue losses of US$12.5 billion[1] for the US music industry alone and US$31.8 billion[2] for the global online TV and movie industries. On the user data arena, we have over 5.1 billion use mobile phones, over 4.0 billion use the internet, and over 3.1 billion use social media[3]. How content and media platforms share user data has become a topic with recent scandals at companies like Facebook, where over 87 million users had their data unknowingly exposed to third parties. How platforms charge for user data has always been an issue, as highlighted by the ongoing struggle for content creators to claim more streaming revenues from centralized platforms such as Facebook and Google. We have seen regulatory bodies take measures against these issues, such as the EU's recent General Data Protection Regulation (GDPR) to address personal data privacy. However, these measures ignore the fundamental problem that exists in today's data-driven world - data that is owned and maintained by centralized interests will always be subject to security risks, non-transparent sharing and access grants, as well as unfair monetization by their custodians. Due to this unbalanced incentives between content creators, publishers, curators and consumers, the core component in this ecosystem, the content creators, lack the incentive to create high quality content that contribute to the proliferation of the community. We believe that data ownership and access management should be removed to the greatest extent possible from centralized interests and given back to their respective owners and creators.

Over the last decade, we have witnessed exponential growth in cryptocurrencies and blockchain-based new economy. Bitcoin price soared from US$0.003 to US$20,000, with each price crash leading to a quick recovery and a new all-time high. Hundreds of cryptocurrencies reached market caps of more than US$1M. The underlining blockchain technology was an even larger source of innovations, leading to Ethereum, smart contracts, token's, and a broader new economy built upon decentralized applications. it is expected to transform all the major industries of modern society, including finance, communications, energy, military, etc. In fact, the blockchain technology is so disruptive that it is widely recognized as web 3.0 -- the internet of value.

The blockchain technology is the very first technology innovation in human history to revolutionize relations of production. The centralized model of relations of production worked well for bringing human beings from African savannas to the modern society of 21st century, thanks to its high efficiency of organization. However, it also largely sacrificed individuals' freedom and rights of wealth. That is why there are billionaires as well as struggling workers and

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[1] Simon Kemp, We Are Social, *Digital in 2018: World's Internet Users Pass the 4 Billion Mark* (January 2018)
[2] Stephen E. Siwek, Institute for Policy Innovation, *The True Cost of Sound Recording Piracy to the U.S.Economy* (August 2017)
[3] Simon Murray, *Digital TV Research* (January 2018)

farmers in every country today. The issue is much worse for digital world. Large corporations like Google and Facebook are able to scale very quickly by growing users and charge for user data with only minimum earned interests shared back to content creators.

At the core of relations of production are people's ownerships and accesses to means of production and value of production. Highly civilized society requires deep and broad collaborations between multiple parties, ownership of the work and access to the produced value are keys to relations of production in modern society. This is even more so for digital world. Therefore, to revolutionize relations of production with decentralized internet and blockchain technology, the most significant and urgent problem to solve is ownership, access, and identity management.

Social media, content authoring platforms, and the internet's open platform have together created the digital content industry. From the audio content we listen to, the video content we watch, the content we upload and download everyday, the digital content industry has witnessed an enormous growth in its scale and depth. However, the rapid development of the digital media trend has inevitably brought more challenges to the industry. A Matthew Effect has gradually emerged, and the vertical monopoly of large and centralized companies within the industry has made it virtually impossible for independent, aspiring, and lesser known content creators and artists to display their talents and charge others for the use of their IP. Highly centralized content management methods have encouraged platforms to cater only to well known professional content generators, which has curtailed the vast potential of content generation from undiscovered amateur creators.

More important problems in digital media industry exist too, especially for user privacy. There is a huge conflict between users' privacy and advertisement. Also, the content creators and followers need to clarify all the rights of access of network data. Other problems such as unclear data ownership and information asymmetry continue to plague the industry.

Not only is the industrial infrastructure backwards, it also lacks an effective IP protection system. The scope and speed of information dissemination in today's digital world is growing rapidly, and transmission costs are converging to zero. This has duly served to spread both original content and pirated content.

DACC is the world's first decentralized IAM content chain. DACC will revolutionize the digital content industry and will fundamentally solve the issues of data ownership and access control through the combination of blockchain infrastructure and IAM technology. IAM is a system for securely initiating, storing and managing user identities and data access permissions. IAM provides for proper authentication (ensure users are who they claim to be) and authorization (ensures users have access only the data and resources they are entitled to). DACC provides a complete decentralized IAM file system, IAM public blockchain, IAM chain services, and a complete set of development tools to build any content-based platform or DAPP in DACC's ecosystem.

DACC identifies IAM as the key issue to solve because of two reasons:
1. The blockchain technology revolutionize relations of production of modern society.

2. The key issue of relations of production is people's ownership of means of production as well as access to the produced wealth, In another word, identity and access management.

DACC protects users' privacy by recording file access logs into blockchain. DACC avoids content copy-and-redistribution through two methods:

1. De-duplication of files in DACC File System. Whenever DACC File System discovers files with the same content hash value but different root source, it sends alerts to all file owners, and it's up to the owners whether to appeal for the content or IP being copied.
2. Whenever content consumers discover similar contents with different root source, they can choose to report to DACC Admin Committee. Successful report rewards the user who reports.

1.2 Digital Media Industry Challenges

Centralized content platforms and media companies like Facebook and Yahoo have failed us. Under their watch, three key problems have proliferated: personal data theft, IP piracy, and monopolization of monetization. DACC fundamentally solves each of these issued by integrating IAM concepts and technology into the infrastructure, block structure, and token economy of the DACC platform.

Personal Data Theft

As the digital trend grows, data becomes more valuable. Centralized content platforms and media companies recognize this, and for years they have built their business models around obtaining as much data as possible on any and all users. While this has served these companies (and their profits) well, this has also made these companies into targets for hackers. System breaches and personal data theft has become increasingly common among today's centralized corporates.

Facebook has been embroiled in a public controversy where 87 million of its users had their data inappropriately obtained by Cambridge Analytica, a third party political consulting, data mining, and data brokerage firm. Cambridge Analytica allegedly used this data to influence voter opinion during the US presidential elections. Facebook CEO Mark Zuckerberg has been brought to testimony in front of both the US Congress and EU Parliament in April and May 2018. However, Facebook has thus far avoided major fines or sanctions stemming from its data scandal.

Equifax is one of the largest consumer credit reporting agencies in the US and keeps records on all US citizens' credit history by obtaining transaction and banking data from financial institutions that lend or issue credit (i.e. banks and credit card companies). During May-July 2017 hackers accessed personal data of 146 million Equifax customers. This data included Social Security numbers, driver's license numbers, credit card numbers, birth dates, addresses, and more. There were reports of inside executives selling company stock before news of the breach was released, and ultimately the company CEO had to step down.

Uber had a combination of names, email addresses, phone numbers, and driver's license numbers of 57 million customers and drivers stolen by hackers in October 2016. According to reports, hackers obtained login credentials to Uber's Amazon Web Services account and gained access to its data. To make matters worse, Uber was found to have known about the breach but instead of reporting it to authorities Uber decided to pay the hackers $100,000 to delete the stolen data and keep the breach incident a secret.

Yahoo was found to have had the names, birth dates, phone numbers, passwords, security questions/answers, and backup email addresses used to reset lost passwords stolen by hackers in 2013. Investigators determined that virtually all of Yahoo's 3 billion users were affected. Afterwards, copies of the stolen data were reported to be shopped for $300,000 per copy to known espionage and spamming groups.

Network Data Abusement

Especially in social media industry, the unclear permission of different network data cause a lot of problems too. The users have limited control of their own network data, the platform leverage these data heavily, and the content creators or organizers have limited access to utilize these network data too. This cause unbalanced economic model and unclear conflict between the participants in digital media industry.

IP Piracy

One of the most challenging issues when dealing with digital content is how to detect and ensure the original source of any data or IP. Lack of copyright protection affects not only the reputation and earnings of the content industry, but also disincentivizes the creation of new content.

Monopolization of Monetization

The digital media industry has seen tremendous growth with the advancement of digital technology and platforms. Digital media is reaching more people in more formats and in more channels than ever before. However, while content creators and consumers have benefitted from broader exposure and access, the main beneficiaries of the digital audio trend have been the centralized platforms that control and distribute content. These centralized platforms typically have business models where content rights aggregators (i.e. music labels) take 55% of revenues, content distributors (i.e. platforms like Spotify, Youtube, etc.) take 40% or more of revenues, and content creators are left with less than 5% of total revenues generated.

Growth in the digital media industry has been realized in spite of creators, and for this growth to be sustained all parties, from creators to consumers and all actors supporting content distribution and technology infrastructures, must be fairly and properly incentivized. These incentives are needed to develop and reward creativity, and without such incentives the digital content market will fail to reach its full potential. Only the top fraction of artists and creators with

industry leverage will be able to support their endeavors, and the vast majority of potential content IP from lesser known content generators will never be published.

1.3 DACC IAM Based Solutions

The current centralized model is backwards. DACC's IAM based platform will put data permissions and access management back into the hands of right participants in the digital media industry. DACC's public chain will feature IAM at the infrastructure level,utilize IAM with data storage, and embed IAM into block creation. By treating the access to content, user, network data as a transaction, DACC's platform allows for greater user sovereignty and control over their own creative content and their public social profile, reputation, and network data. Users can control access to their data, and users can determine how they charge users for the use of their data.

As long as centralized companies and data platforms exist there will continue to be data breaches. DACC solves this issue by integrating IAM elements throughout its decentralized infrastructure. Within each transaction, within each block, and within the file and storage system, DACC uses IAM to protect data and allow for data access control at a granular level. Users directly control who has permission to access their personal data, network data or content IP. Data access permissions are treated as transactions in DACC and immutably stored on DACC's public chain. Data access is also treated as a transaction that is also immutably stored on DACC's public chain so that any access by any user can always be traced and verified.

DACC will utilize machine learning methods in data processing and community governance committee to identify IP, user data and network data. Whether any uploaded content data is determined as genuinely original will depend if the uploaded content is the only copy and if there is any dispute involving the content. DAPPs on DACC come with templates that allow for systems with special DACC nodes and arbitrators to verify and determine if copyright abuse has occured.

Not only DACC will provide IAM based blockchain service in digital media industry, but also it will innovate the coordinate economic model in digital media by building a global community and token economy. DACC will revolutionize the digital media in the near future.

1.4 DACC Competitive Advantages

DACC is a platform that will revolutionize the digital media industry. DACC will establish a public blockchain that features data ownership and access management at the infrastructure level. A full suite of developer tools will also be created, making it easy to build on top of DACC and develop content-related decentralized applications (DAPP's) for all users and use cases.

1.4.1 Infrastructural Innovations Based on IAM System

DACC will be designed with the following core technical elements in mind:
- A decentralized file system that contains intrinsic identity and access management (IAM) and a scalable public blockchain used as a ledger for recording transactions
- Smart contract capabilities, including the ability to issue new tokens (launch ICO's) and the ability to build any content-related decentralized application that requires strong IAM (We will have a special agency to verify whether the coin created by the user is a securities token. If it is a securities token, we do not recognize its validity.)
- Developer tools with abstracted token economy templates for both creative content and social network data.
- Modular decentralized file system with strong IAM controls that can be called by other blockchain services
- Token Economy Template and GUI tools for both creative content and social network data.

1.4.2 Unique Consensus Algorithms - Scalable with High Volume Transactions with Low Latency

- DACC file system identifies and delegates different accesses of creators, distributors, organizers, and consumers.
- DPOS+VRF used as consensus algorithm on public chain to ensure the scalability and high volume transactions with low latency
- DACC tokens used for transaction fees and storage fees, block producers and storage providers are rewarded with DACC tokens

1.4.3 World-Class Global Community

The DACC team comprises of industrial veterans from media, technology, and social media platforms with a combined of 50+ years of experience and building a user community with over 20M user base. We aim to bring technological innovations in blockchains, combining our experience in building community, first to the content media industry.
- Experienced team that enables rapid community formation. The team has brought about the formation of 3AM blockchain community, one of the largest blockchain community in Asia-Pacific regions with 10M user base. The team also created one of the most popular blockchain group, 499-block community, with 100,000 followers.
- Global crypto community of 200,000+ users with organic growth of 50,000 users per week, in major English speaking countries including USA, Europe, as well as Korea, Japan and China.

1.4.4 Concrete Use Cases to Deliver Real Value to Digital Media Industry

While blockchain technology show promises across many industries, and bitcoin has been the main implementation of blockchain application so far. However, we believe DACC can bring immediate value to the blockchain ecosystem and multimedia content and media industry where

content creators face urgent challenges in creating meaningful and high quality audio and media contents.

- First wave adopters of DACC protocols will be the digital media companies in blockchain industry. DACC will help media company build their own DAPPs on DACC blockchain and help solve immediate issues such as securing original content creation, anti-plagiarism and protections of user data.
- Multimedia industry especially audio industry will be among the first wave adoption as well. As mentioned earlier, audio content creators will see immediate revenue generation and curators will directly benefit from curating and discovering quality content. DACC will partnership with Vinci Smart Headphone to develop its audio ecosystem.
- We believe innovation is the essential part of DACC development. DACC Labs will develop its own DAPPs which has innovate features and economic model. DACC first Dapp will be it's audio Dapp, also developing its second crypto media Dapp.

1.4.5 An Innovative Incentive Token Scheme

- In the traditional digital media industry, publishers took a significant amount of profits which deters the motivation of content creators. The highlight of the DACC protocols is to the tackle the imbalance between creators, curators, referrers, consumers and developers.

- In DACC community, DACC Token incentives will be mostly rewarded to block producers, infrastructure maintainers and ecosystem developers,

- DACC aims to place content creators back to the center of the stage and eliminate the intermediaries that cause unnecessary friction of content creation. DACC will empower the content creators in the long run.

2. DACC IAM-Based BlockChain Platform

2.1 DACC Overall Architecture
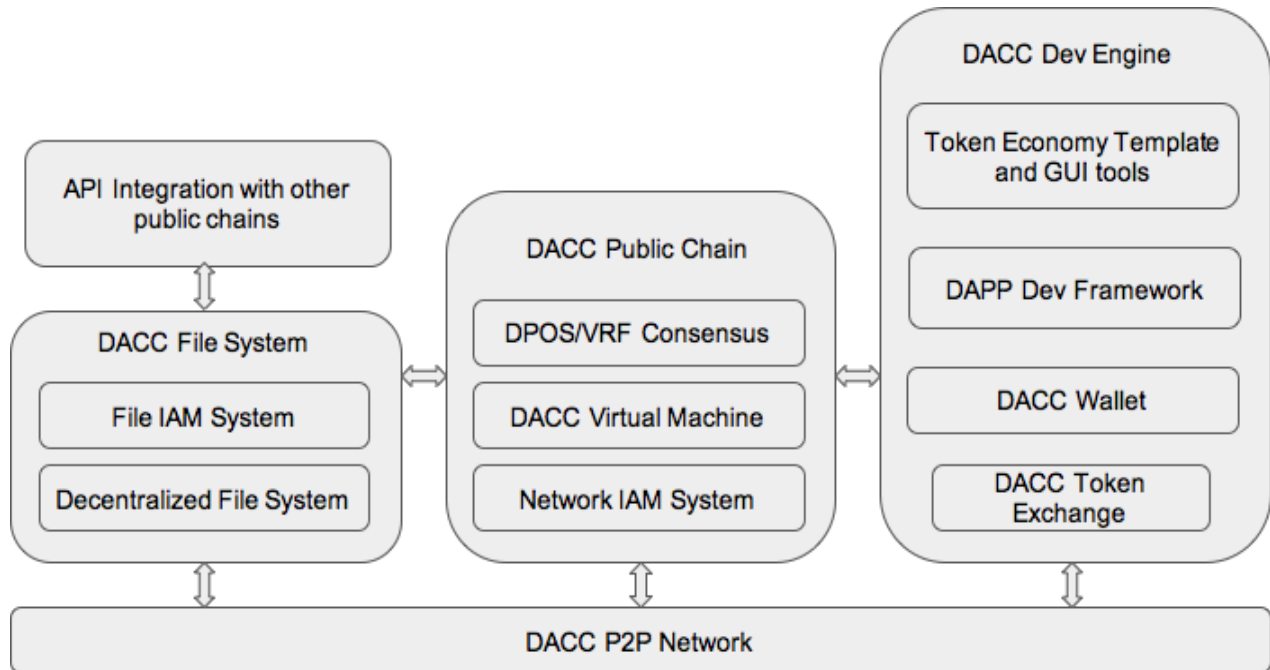
Figure 1. DACC core architecture and components

DACC platform is world's first IAM based platform which includes 3 parts, a distributed file system with built-in IAM, DACC public chain and DACC development tools. DACC will focus on developing a modular based decentralized file system with IAM, this can be plugged in other public chains too. DACC public chain also features strong IAM controls, with DPOS/VRF Consensus to ensure scalability. Additionally, DACC will provide development tools for different parties of digital media industry, including content creators who have limited development resources, developers who are building their own DAPPs in digital media industry and other blockchains who need IAM system.

2.2 DACC IAM File System
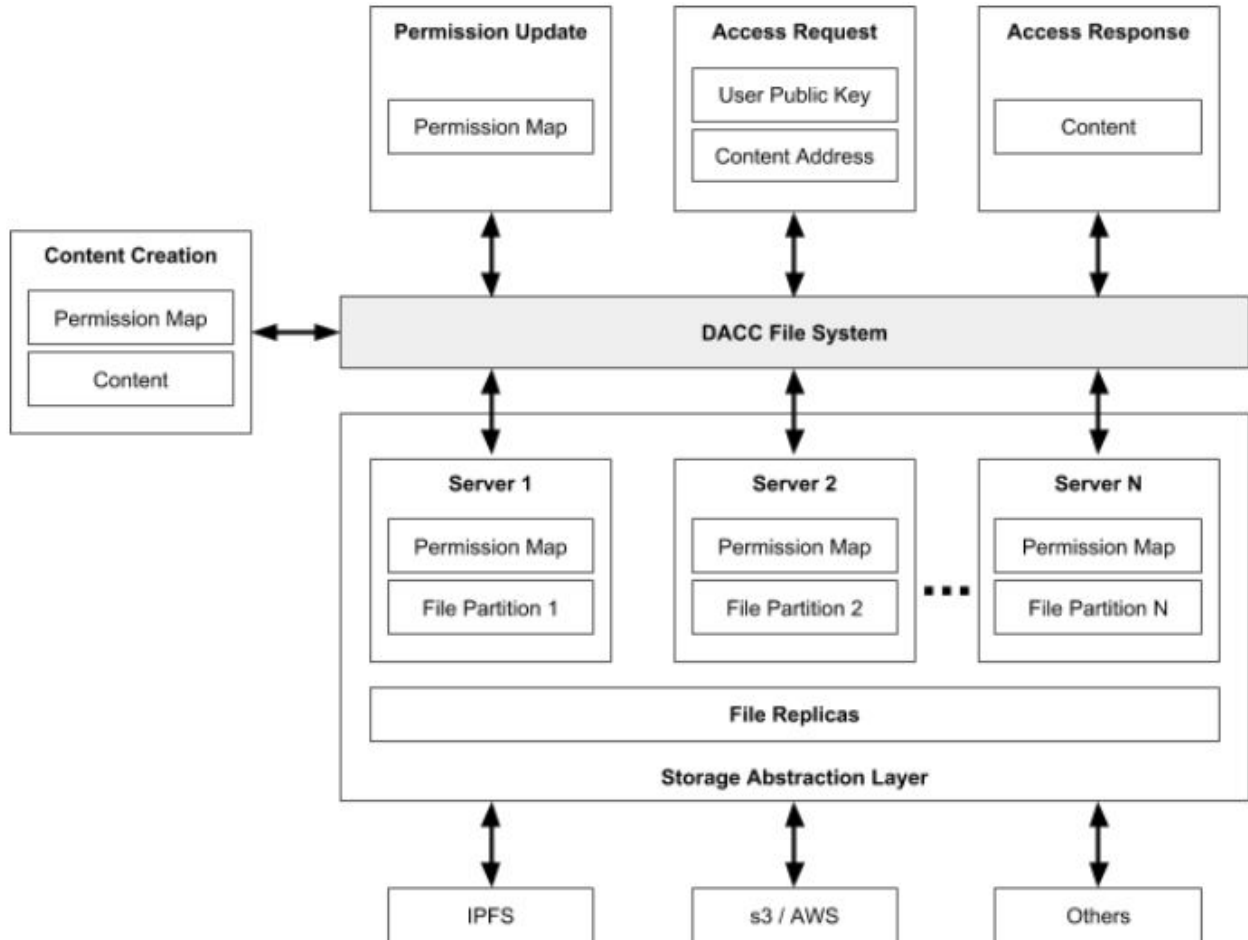
Figure 2. DACC's decentralized file system and IAM elements for data control

DACC's IAM file system is the most fundamental infrastructure and innovation of DACC architecture. It includes file sharing system, permission maps, migration engine from centralized storage to decentralized storage. More importantly, the whole system is modular and independent from the rest of DACC architecture, so any other public chain that needs modern decentralized storage with IAM capabilities can easily implement DACC file system.

2.2.1 File Partition and Permission Map

DACC allows users to upload data in any format. Data must also be uploaded with a form of permission map. This map defines access permissions and delegations and enables IAM on uploaded content. Permission maps can be modified and updated at any time by content creators.

Process of DACC file system (DACC FS) handling file download request
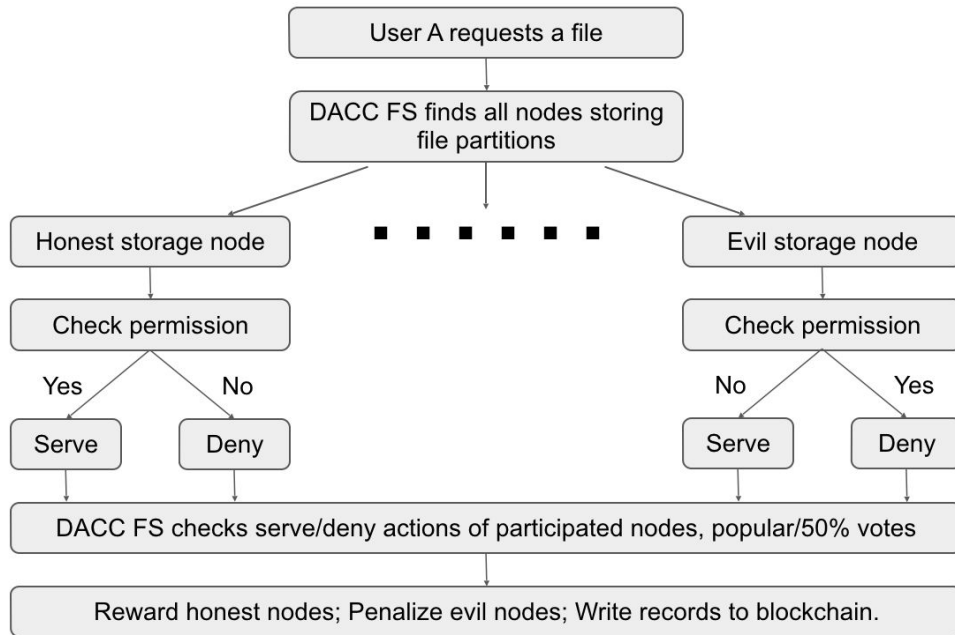
Figure 3. DACC FS handling file download request

Example permission map:
```
{
         "User A Address": [
                  "IsAdmin": "False",
                  "IsOwner": "False",
                  "Read": "True",
                  "Read Expiration":
"1528006206",
                  "Write": "False",
                  "Execute": "False",
     ], "User B Address": [
                  "IsAdmin": "True",
                  "IsOwner": "True",
                  "Read": "True",
                  "Read Expiration":
"Never",
                  "Write": "True",
                  "Write Expiration":
"Never",
                  "Execute": "True",
                  "Execute Expiration":
"Never",
         ],
         …...
}
```

Figure 4. DACC Permission Map Example

Data access requests are also straightforward and only require the requestor's public key as identifier and the address of the requested content itself. Once these inputs are authenticated by the file system and authorized by the content owner via permission map, an access response is generated and the requested content is delivered to the requestor.

Content and data are stored on DACC's distributed file system. All files will be split into partitions, and each partition will have a corresponding permission map. Partitions will be allocated across different servers, and file replicas will be stored to prevent data loss.

Below we present our concept of Proof of File Control. To establish our proof, some rules must be set.

1. Data provided by a supplier is stored on the supplier's node and not on another user's node.
2. Suppliers cannot commit to store more data than they are physically able to store.
3. No outsourcing of data storage is allowed.

The next step is to validate that the number of data copies that users claim to store is consistent with the actual number of data copies users actually store.

2.2.2 Compatibility between Decentralized and Centralized Storage

DACC supports data storage over a distributed network such as IPFS, as well as centralized cloud storage solution such as AWS. We anticipate that the data storage will become a long term investment for tons of terabytes of data. Participation in storage providers will require a significant amount of financial investment. In the meanwhile, we believe in the power of community and encourage participation of all content creators, content consumers and partners. Therefore we provide compatibility of individual storage providers who can contribute hundreds of GB (gigabyte) storage, as well as data center who can contribute PB (petabyte) storage.

The Proof of Storage Control will be represented by Proof of Storage. The process of determining Proof of Storage requires three stages:
- Files will be divided into smaller chunks together with permission map, digitally signed by the data owners with token incentives. Such request will be published on the DACC file system.
- Storage providers will see those requests and accept storage request together with Token incentives.
- Such Token will be locked in an escrow account and be distributed to the storage provider upon completion of storage with Proof of Storage over a period of time.

2.2.3 IAM based Modular open to other blockchains

DACC IAM file system will be designed following a modular design philosophy. The IAM features including the permission map will be visible from other blockchains via secure protocols with API. DAPPs built on DACC, or even DAPPs on other blockchains will be able to directly call

API and fetch information on DACC permission map and file system, encouraging data transactions and liquidity of digital asses on DACC community.

2.3 DACC IAM Based Public Blockchain

DACC will develop its own public blockchain with an infrastructure and features in mind to support easy DAPP development for content-based platforms.

2.3.1 Consensus Algorithms

DACC's consensus algorithms feature different participants' proof of the access of content, user and network data. The access includes ownership, usership, and etc. This proof can be transferred to stake, which can get the different benefits of the platform.

Three parameters must be considered when designing technical network system: decentralization, security, and scalability. Only two of these three parameters can be fully prioritized, and different systems will choose different priorities based on their specific needs. Content based chains and applications require security and scalability to ensure full intellectual property protection and a smooth user experience even as the number of users greatly increases.

Current cryptocurrency and blockchain solutions in the market are not robust and fast enough to support large scale communities. For example, Bitcoin and Ethereum support transaction speeds of 7 and 20 transactions per second, respectively. Other popular cryptocurrencies such as Bitcoin Cash (60 per second) and Litecoin (56 per second) are not much faster[4].

DPOS is one of the few consensus algorithms that has been shown to provide high performance and scalability with small sacrifices to decentralization. This consensus method is also slightly centralized in that ultimately only a select committee of block producers (or "witnesses") are allowed to produce blocks on the chain and earn associated transaction fees. However, through these witnesses greater performance and scalability can be achieved.

DACC will leverage learnings from other DPOS protocols that focus on facilitating and expediting blockchain transactions, such as Graphene[5]. The technology behind Graphene has been demonstrated to support up to 10,000 transactions per second with some straightforward optimizations in server capacity and communication protocols. With this transaction speed, the DACC can easily support up to 315 billion transactions per year. If we assume 10 ratings per user per day, DPOS can enable the DACC to support up to 86 million daily active users (DAU's).

Regarding forks and their handling and mitigation, DPOS-based blockchains are generally resistant to forks as block producers are incentivized to cooperate rather than compete to produce blocks. Through DPOS, the rate which blocks are produced and added to any chain or

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[4] Raul Amoros, *Transactions Speeds: How Do Cryptocurrencies Stack Up To Visa or PayPal?* (January 2018)
[5] Graphene Technical Documentation (http://docs.bitshares.org/)

fork chain is dependent on how many block producers working on the same chain or fork. In other words, any particular fork with more producers working on it will have blocks added to it faster relative to other forks. And in situations where any fork occurs, the network is designed such that consensus will always choose the fork or chain with the most number of blocks (i.e. the "longest" chain). Additionally, any block producers found to be producing blocks on different forks at the same time will be removed by the Management Team.

To further improve DACC's public chain integrity, verifiable random functions (VRF) will also be used in conjunction with DACC's DPOS consensus. Using VRF, a publicly verifiable randomness will be generated to choose validators. Via VRF, a fair and secure mechanism can be established to choose who will be proposing next block. In return, block validators will be properly awarded with DACC tokens for their work in proposing blocks. With VRF and block signatures, fast consensus (sub 1 second) can be achieved among block producers and transactions can be confirmed in an immutable manner.

2.3.2 DACC Virtual Machine

DACC's platform software can be abstracted as a network that facilitates the communication of validated transactions between network and user accounts. In this way, any software language or virtual machine can be compatible with DACC as long as they can be integrated with DACC's platform software API.

Validation of transactions involves two parts: validating if a transaction conforms to internal standards, and validating if a transaction has the necessary prerequisites such as sufficient transaction inputs. After a transaction is validated, then DACC application or blockchain states can be updated. DACC's software will encourage parallel computing opportunities to the greatest extent possible by clearly defining blockchain state access rights for the validation of transactions and for the actual updating of application and blockchain states. Through this, DACC's platform can process transactions more efficiently.

DACC virtual machine will support Ethereum VM, but will mainly support WASM (web assembly), a more efficient system than EVM. WASM also supports JIT compilation, allowing developers to write C/C++, java code that can be run on DACC VM.
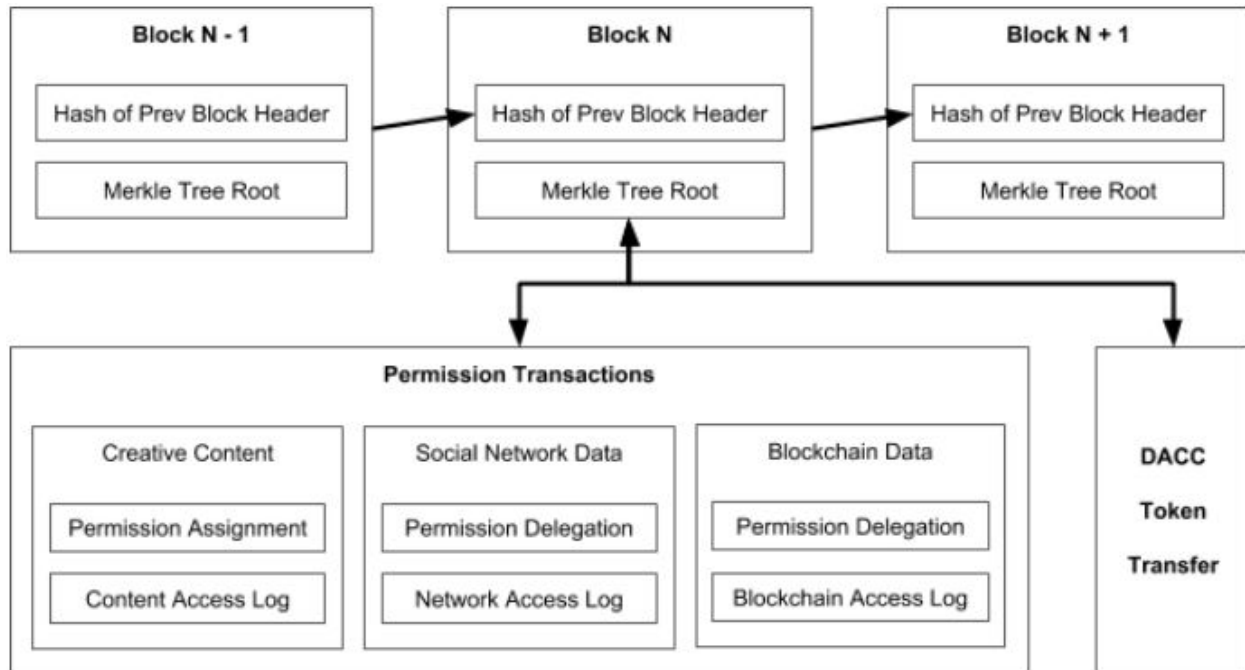
2.3.3 Block Structure

Figure 5. DACC block structure and core content components

2.3.4 Block Contents with Smart Contract

All blocks and transactions contained on DACC's public chain will include at least a part of the hash of the previous block header. This is meant to preclude the false duplication of any block or transaction on any fork. This also serves as a record of a block producer's DPOS on any fork.

The header for each block will also contain a Merkle tree root which summarizes all transaction data contained in the block. Merkle tree roots are derived through a series of hashing starting from the "bottom" or leaf nodes of the tree and all the way back up to the Merkle root. If any single detail of any transaction in the block is changed, then the Merkle root for the blocked is changed as well. Merkle roots provide a quick and easy method to verify if any transaction is included in any given block. Through this verification, the Merkle root can be used to protect the integrity of the transaction data within each block.

Merkle trees can be downloaded one branch at a time, and the integrity of the downloaded branch can be quickly checked and verified. This partial branch checking can be done even if other branches of the Merkle tree are still not complete. This aspect of Merkle trees and DACC blocks opens up the feature of Simplified Payment Verification (SPV). SPV is a method of verifying if particular transactions are included in a set of transactions within a block without the requirement of downloading the entire set of transactions within a block.

Permission Transactions

As with all blockchains, blocks on DACC's platform will store transactions. However, DACC's blocks will be specifically designed to store transactions revolving around permission and access to content. By treating the access to content and data as a transaction, DACC's platform allows for greater user sovereignty and control over their own creative content and their public social profile, reputation, and network data.

Transactions on DACC's platform will generally fall into two categories: creative content transactions and social network data transactions. Creative content transactions relate to content IP. These transactions will allow for the transfer permission assignments to users and will also keep logs and statistics on content access by users. Content creators can charge other users DACC Tokens for accessing their contents as they deems appropriate, it can be over a period of time or over a permanent period. Access logs can be analyzed to understand consumer behavior and quantify content quality. Social network data transactions relate to personal data and information. These transactions will allow for the delegation of access permission to users and entities of the data owners' choosing.

Smart contract can be built to facilitate permission transactions through developer toolkits. More details can be found in a later chapter.

2.3.5 Block Creation

DACC's platform software will initially designate a block production time of 10 seconds. Platform usage will be monitored and this block production time may be adjusted accordingly. Block producer will be allowed to produce blocks every 10 seconds, and each block may only be produced by one block producer. In the event that a block producer misses or skips their block production time, then the DACC platform will require the block producer to wait another 10 seconds before producing the next block. If certain block producers continually miss block production times or become inactive for an extended period of time, they will be voted out of their witness status and will be prevented from producing blocks again for a certain period of time.

DACC blocks will be produced in intervals of 6N blocks, where N represents the number of block producers and each block producer produces 6 blocks per interval. Prior to each interval, N block producers are selected by vote among DACC's token holders. The order in which the N block producers produce blocks will be determined fairly through random order generation.

2.3.6 Public Chain Security

DACC implements formal verifications (FV) to ensure security over DACC blockchains. Although bugs are inevitable, we are planning to implement a systematically exhaustive approach to build a mathematical model with codes to consistently improve blockchain security. Security is a paramount matter to DACC community. With recent glitches found on Ethereum platform where smart contract owners introduced bugs that can be exploited and led to overflow of float numbers. DACC blockchain is set to protect the digital assets of all participants.

Furthermore, we are also going to set aside bounty program that encourages developer community to build and improve DACC blockchain project. Developers will be rewarded with bugs found and software improvement implementation under the developer community fund.

2.3.7 Technical Comparison between Major Blockchain Platforms

Our goal is for DACC to be the best blockchain infrastructure for all digital media platforms that require solid IAM solutions in addition to scalability, decentralization, and tools to facilitate easy development of DAPP's. DACC's software compares favorably to the leading decentralized platforms in the market.

	Ethereum	EOS	Filecoin	Stellar	DACC
IAM at Chain Level	Medium	Strong	*n/a*	Weak	Strong
IAM at File Level	*n/a*	*n/a*	Weak	*n/a*	Strong
Scalability	Weak	Strong	Strong	Strong	Strong
Decentralization	Strong	Medium	Strong	Medium	Medium
Developer Friendly	Strong	Strong	Weak	Medium	Strong

Figure 6. DACC comparison of features vs. leading blockchain platforms

DACC is the first blockchain project that brings IAM at both chain and file level, providing direct IAM from user identity to file access. Filecoin initially tackles the access management issues but offer only weak IAM at file level. Premier blockchain projects such as Ethereum and EOS focused on something else, a more universal blockchain platform that is built for general-purpose blockchain applications, rather than managing user data on chain, or at storage level. We find such a niche will create true value for managing user data and contents with permission map.

Scalability has been discussed extensively elsewhere within the blockchain community, while the DPOS + VRF consensus mechanism is one of most promising technologies that aim to bring scalability with limited compromise over decentralization. In such case, DACC, along with EOS, filecoin, and stellar demonstrate better scalability than the POW mechanism that Ethereum currently employs.

As mentioned earlier, DACC does not over-emphasize decentralization for the sake of decentralization. DACC values real value creations and protection of user data/contents using blockchain technology.

2.4 DACC Developer Tools

A full suite of developer tools will be created to allow end users, companies, and research groups to easily create content-based DAPP's for a variety of purposes including, but not limited to, audio content, video content, token curated registries, etc.

DACC's DAPP development framework will abstract the process of DAPP creation with simple and easy to use modular tools and functions. Fully customizable token economy templates will be included so that any token fee, incentive, and reward system can be created and implemented to suit the needs of the content application and ecosystem being created. DACC's wallet application can be seamlessly integrated into any DAPP built on DACC's public chain to provide a simple and easy solution for token transfer and storage with and DACC DAPP.

2.4.1 DAPP Development Structure
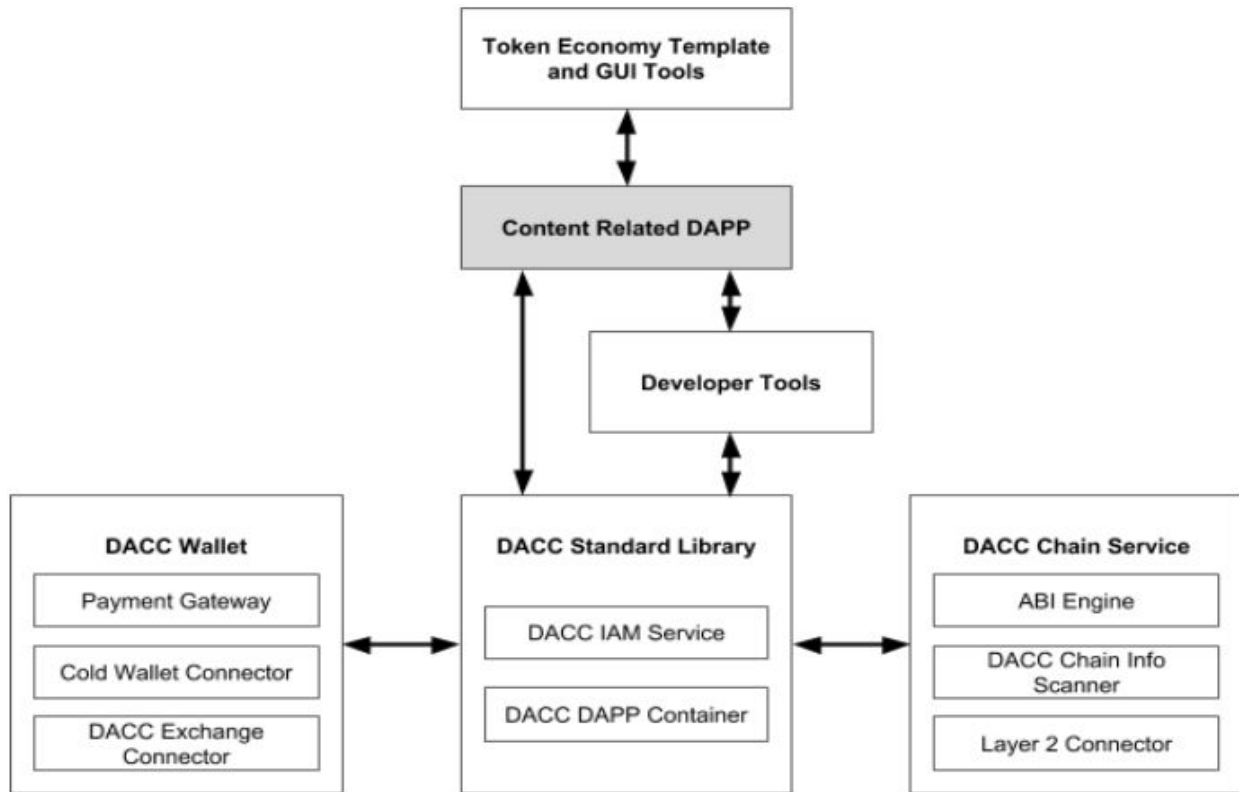
Figure 7. DACC tools and templates to assist with the development of DAPP's

DACC's platform will come with a full suite of developer tools designed to abstract and simplify the process of building content related DAPP's. Developers may opt to use standard templates provided by DACC to quickly create DAPP's and token economies for more basic use cases. Developers may also choose to use DACC's standard library, wallet, and chain service tool kits to build on top of standard templates or create new DAPP's from scratch.

DACC's standard library will include modules for IAM and storage as well as containers for DAPP's. DACC's wallet toolkit will allow developers to integrate DACC with existing payment

gateways, cold storage wallets, and exchanges. DACC's chain service will allow for features such as chain information scanners and layer 2 protocols to be implemented in DACC DAPP's.

2.4.2 DACC Standard Libraries for developers

DACC offers a full suite of libraries that enable developers to build on top of the DACC IAM file system.

Data/File creation
This happens when a new file/chunk of a data is requested to be store on the DACC IAM system.
Developer toolkits that allow file owners to digitally sign the content with private key.

Permission Update
Libraries that allows permission map to be created when file/data is uploaded, updated thereafter.
Permission update api that supports permission map updates post transactions.

Access Request
This library supports parties to request access to certain files. This library also supports various rules and types of requests. The request takes inputs of requestor's public key and other information such as price, gas fee, etc.

Access Response
Access response takes care of boolean decisions whether access is granted or not, upon file owner's discretion.

DACC DAPP container
DACC container provides environment where DAPP is run on DACC virtual machine.

2.4.3 Token economy templates and GUI tools (to users, particularly content creators)

Token economy templates and GUI tools allow users, particularly file owners, or content creators, to quickly submit their original content onto the DACC IAM file system, enabling such content for liquidity and transactions through secure transactions.

This part of technology will be completed by DACC development team and offered to the community as the basic toolkit for the user-facing community.

2.4.4 DACC Chain Service for developers

DACC chain services is built with onchain ABI engine that allows interaction with DACC blockchains.

Public APIs will also be available for scanning and fetch information on DACC block chains.
Layer 2 connectors allows DACC chain information exchange between DACC and other blockchains and incumbent cloud systems and apps.

3. DACC Ecosystem

DACC's public chain integrates IAM and content permission controls at the infrastructure level. This makes DACC the ideal blockchain solution for any and all types of content based DAPP's, especially where personal data and IP are important assets. From token curated registries to social network platforms, DACC's software allows content creators and owners full control over how their data is accessed, shared, and charge for the use of their data.

Below highlight one example of how DACC can be used to build a content-based DAPP with considerations for participants, content creation and storage, and token economy and incentives. We outline this use case in the framework of an audio content DAPP built on the DACC platform.

3.1 DACC Labs and DACC Audio Dapp

DACC will build up DACC labs to innovate in digital media and blockchain industry. This will set good examples for developers in crypto industry, social media and multimedia industry. Based on the former experience, DACC Labs will launch its audio DAPP firstly.

3.1.1 Benefits of a Audio Content DAPP

Data and statistics highlight the trending growth in the audio and music content industries, driven by demand for digital and streaming content in particular. However, for growth to be sustained all parties, including music artists and content creators, must benefit. Content creators need greater security with respect to their copyrights and need greater incentives to reward and develop their creativity. Existing digital content platforms significantly lack incentives for content creators. Platforms such as Spotify, SoundCloud, and iTunes utilize centralized distribution models which often add several layers of conflicting interests between content creators and their content consumers. In doing so, these platforms reduce transparency and keep content creators far removed from their customers and incentives. The limitation of data in the hands of centralized platforms also greatly impacts the ability of smart audio devices and audio AI assistants to improve. While devices like Echo and Airpods have shown the market a glimpse of the potential from these devices, much of that potential still remains untouched. Audio AI is in need of much more data to improve the intelligence of voice AI assistants and create more natural and useful audio interactions for users.

The solution to these problems is a decentralized audio content community and platform which is based on blockchain technology and uses consensus algorithms to properly incentivize and reward all parties - from content consumers and creators, to data storage providers and blockchain validators. There will be no middle man, music conglomerate, or centralized content platform to take incentives and profits out of the market. With DACC's IAM technology, users and content creators can be assured that their data will not be stolen or misused, and that their data can only be accessed by the people and parties they choose.

An audio DAPP would create an open, transparent, and secure ecosystem where audio content and all rewards and incentives that come from content creation, curation, storage, distribution, and exchange remain within the ecosystem for the benefit of all. Furthermore, this DAPP could be designed to connect all decentralized audio content with smart audio devices and drive the market for next generation audio content, devices, and interactions.
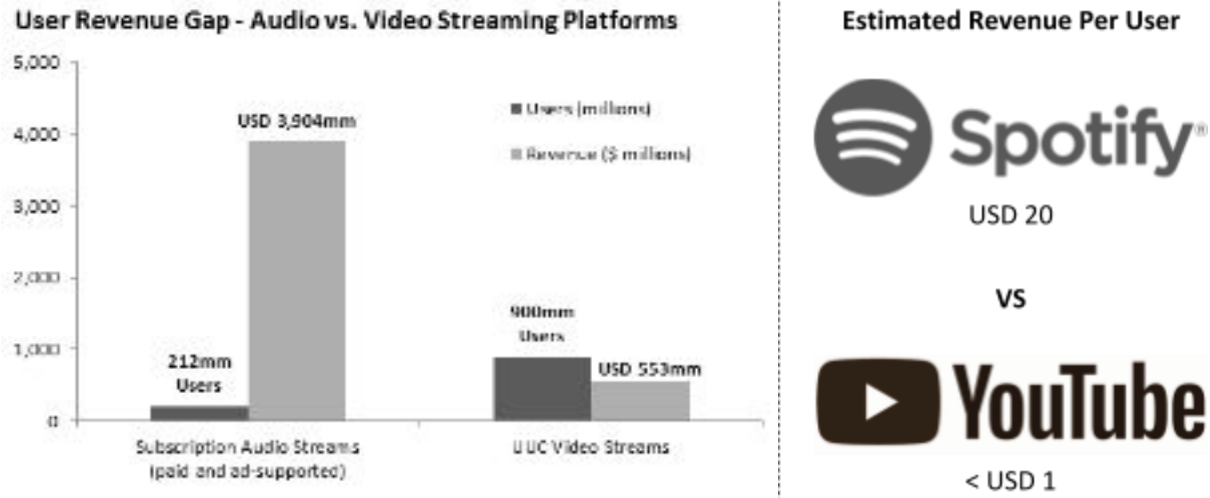

Figure 8. The gap between streaming content value and revenues (Source: IFPI)

3.1.2 DACC Audio Content DAPP

The goal of an audio content DAPP would be to establish a transparent, secure, decentralized, and incentives driven framework for the open creation and exchange of audio content. The DAPP will aim to provide a fair and transparent platform with a self-governing ecosystem and where audio content value is determined by community consensus. This will be achieved by using blockchain technology to record and reward value-added actions by platform actors. These actions include audio content creation, content curation, validating transactions, providing data storage, and more.
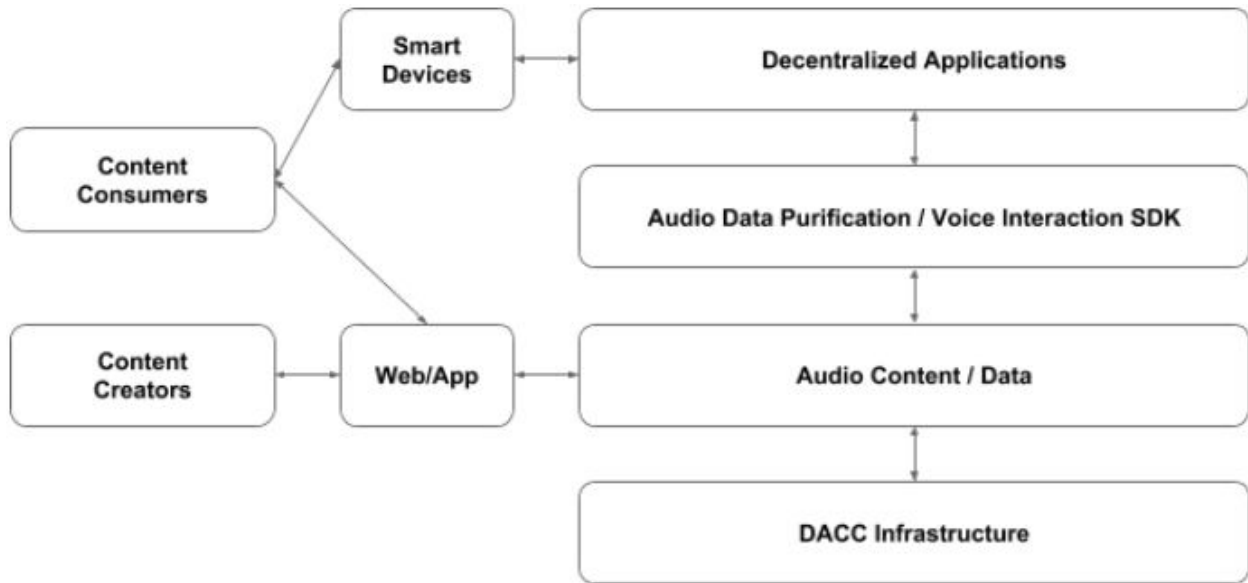
Figure 9. System architecture examples of an audio content DAPP built on DACC infrastructure

3.1.3 Participants in the DACC Platform

Content Creators and Content Consumers
Artists, singers, podcasters, bloggers, and other individuals or groups who provide audio content within the DAPP ecosystem. Users who listen and subscribe to music, podcasts, blogs, and other audio content in their daily lives. Users also have the power to curate, rate, and review content in the DAPP and through their collective actions decide which creators become more popular.

Management Team
The DACC Development Team will elect within the DACC Development Team an experienced team to help manage the DAPP community ("Management Team"). The Management Team will decide on the adjusting of system parameters, which may include transaction fees, ratings and reviews, user authorizations, and creation of new nodes. The Management Team will regularly conduct community comments on their feedback on the DACC platform.

3.1.4 Proof of Recommendation (PoR)

We propose to use Proof of Recommendation (PoR) to quantitatively measure the value of exchange within the DAPP and actively reward both content creators and content consumers for performing value-added actions. We note that content here can mean both audio content and reviews posted by other users. PoR works in two ways. First, when content consumers become content curators and rate/review audio content, the content curator is rewarded through PoR. This serves to incentivize consumers to continue rating content so that good content can be filtered for the benefit of the entire platform. Second, content creators receive rewards as a function of the PoR generated on their content. This serves to incentivize content creators to

continue making good content to earn PoR and benefit all platform users with a selection of higher quality content.

The formula for Proof of Recommendations can be generally expressed as:

$$PoR = f(C, D_T, w, R)$$

Where:

$PoR = Proof\ of\ Recommendations$
$C = Consumed\ quota\ by\ content\ curator$
$D_T = Curator\ balance\ of\ DACC\ Tokens$
$w = Variable\ correlated\ with\ the\ content's\ level\ of\ curation$
$R = Total\ number\ of\ recommendations\ received$

Rewards are calculated based on the quota consumed for curation. DT is factored in to reward users with higher token balances. Furthermore, to incentivize users to discover, try, and curate new content, a variable is added which increases the rewards earned for curating new and lesser known content.

Each user will receive a curation quota that is set once a day at a specified time. This quota is based on the following formula:

$$Q = (D_T + \alpha POR) \times (1 + log(k\rho))$$

Where:

$Q = User's\ daily\ quota$
$D_T = User's\ balance\ of\ DACC\ Tokens$
$PoR = Proof\ of\ Recommendation$
$\alpha = Factor\ used\ to\ give\ more\ quota\ to\ users\ with\ higher\ PoR$
$k = Counter\ that\ goes\ up\ by\ 1\ for\ each\ day\ a\ user\ does\ not\ use\ quota.\ If\ quota\ is\ used,\ counter\ resets\ to\ 1$
$\rho = Factor\ based\ on\ total\ computing\ power\ on\ the\ blockchain$

The quota formula is designed such that users who are inactive and go for days without rating or reviewing content will see declining increases in their daily quota. Meanwhile, users who frequently provide ratings and reviews will be able to use more quota over time and thus have more influence in the DAPP. The formula is also designed to take users' PoR into account and provide higher quotas for users with higher PoR.

Whenever a user posts a rating or review, a certain amount of their quota is consumed. This consumed amount is based on the following formula:

$$C = Q \times e^{-t\sigma}$$

Where:

$C = Consumed\ quota$
$Q = User's\ daily\ quota$
$t = Time\ since\ user's\ last\ rating\ or\ review\ posting$
$\sigma = Factor\ based\ on\ total\ computing\ power\ on\ the\ blockchain$

The consumption formula is designed such that providing many ratings and reviews in a short period of time is expensive, so as to discourage spamming. Users can continue to provide ratings and reviews so long as their daily quota remains positive.

Rewards for Content Creation

The amount of DACC tokens received by content creators is also correlated to the total contented created on that day. The more the total content created by the community, the tokens received by the creators will be multiplied by the factor brought by the community coefficient. In addition, the more curated and well known a creator's content is, the more rewards they receive for receiving subsequent ratings and reviews.

$$R_{total} = (R_{direct} + PoR) \times C_{community}$$

Where:

$R_{total} = Total\ token\ reward\ received\ by\ the\ content\ creator$
$R_{direct} = Direct\ token\ revenue\ earned\ from\ content\ sales\ and\ subscriptions$
$PoR = Indirect\ token\ revenue\ earned\ from\ community\ sharing\ and\ curating\ of\ creator\ content$
$C_{community} = Coefficient\ that\ is\ proportional\ to\ the\ total\ content\ generated\ by\ the\ community$

Promotor Cooperation

Audio content creators can also set up cooperation mechanisms which allow other users to earn a share of DACC tokens paid from purchased content. Users can help to promote and market content through a trackable, user-specific referral link whereby any token generated by the referral link are split between the content creator and the user as per the rules of the promoter cooperation policy.
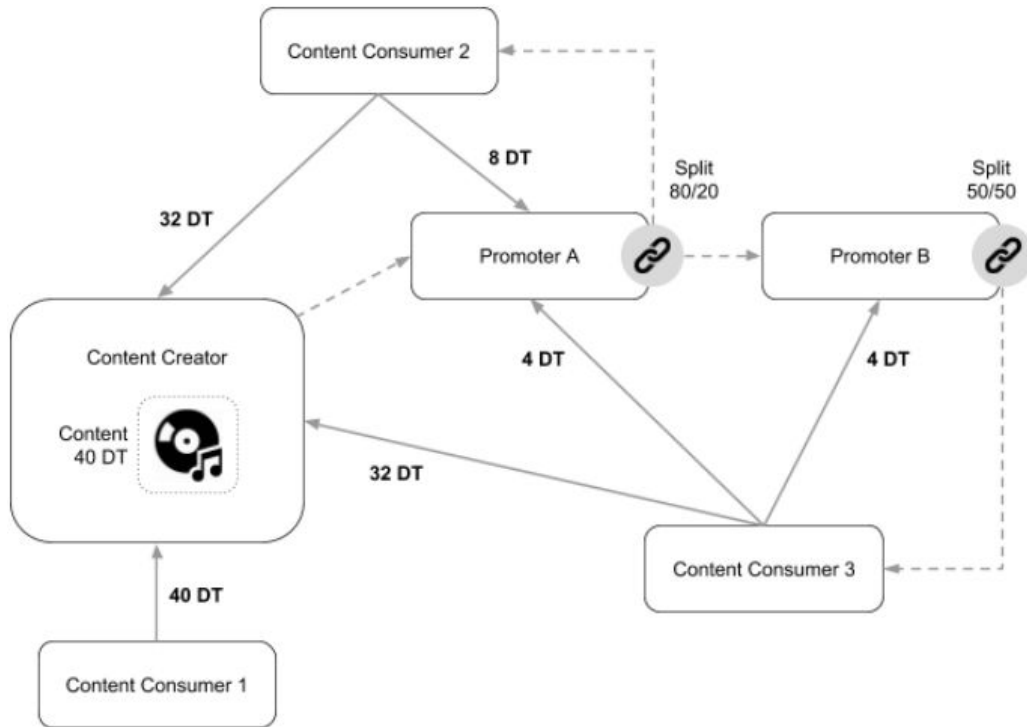
Figure 10. Example profit sharing scheme and respective payouts

3.1.5. Content Creation, Pricing and Curation

All users are eligible to create and provide audio content to the DAPP community. Content can be in the form of song files, song albums and playlists, internet radio stations, podcasts, and more. Creators are encouraged to provide high quality content as this can help creators earn DACC tokens through purchases or earn DACC tokens rewards from obtaining positive user ratings and reviews. These rewards and earnings all go directly to content creators, and there are no platform, listing, or distribution fees charged by third party interests.

Copyright Protection

In order to address copyright protection and maintenance, all content ownership information will be recorded and time stamped into the blockchain when content is created and posted. This ownership information will be publicly available on the blockchain, thus allowing all users to trace any content back to its original creator. The copyright itself will take the form of a private key that is generated when content is created and can only be accessed by the original content creator. The private key (copyright) owner has full ownership over the content they create, and can also decide how their content will be used and distributed. Private key owners also have the right to transfer and/or distribute their content copyright to other users, although content creation will always be attributed to the original content owner as recorded on the blockchain.

Deposit Requirements

As a safeguard to deter creators from providing fraudulent content to the public, creators will be required to place a deposit by way of DACC Tokens each time they post content. This deposit acts as validity of posted content and ensures that content creators assume responsibility in asserting ownership of their posted content and IP. After a creator's posted content has received 80% of purchases and reviews, and no complaints of plagiarism have been received within one month after the publication of the content, the deposit will be returned to the creator. And if a plagiarism complaint is received after one month of publication, we will set up a commission of inquiry to verify the matter. If it does constitute plagiarism, we will cancel creators' exclusive qualifications. The amount of initial deposit required may be reduced for creators who demonstrate a history of posting authentic content and have received threshold number of good reviews from consumers. In any case where content fraud is found, such as if a creator violates the content copyright or otherwise violates the terms of use of the DAPP, the creator will face a penalty which includes confiscation of their deposit as well as potential access restrictions. All decisions with respect to content deposits, including initial amount required, criteria to have deposits returned, and thresholds to reduce or waive future deposit requirements will be determined by the Management Team. An appropriate balance must be maintained such that deposit requirements are high enough to deter fraud and copyright abuse, but not high enough to significantly deter creators from posting content.

Arbitration

Forums for arbitration will be provided to allow consumers to request refunds if discrepancies are found between the content information advertised by creators and the actual content purchased by consumers. A consumer can submit a refund request to the Management Team together with the record of transaction. The consumer and the content creator will then enter into arbitration. The Management Team will investigate by comparing the marketing information and actual content provided before deciding on the arbitration. If meaningful discrepancy is indeed found, the paid DT for the content will be taken from the creator's DT balance and returned to the consumer. The creator will also have their deposit confiscated and may lose access to some or all features of the DAPP.

Content Pricing

The audio content DAPP will put pricing directly in the control of content creators and out of the hands of large corporates, digital platforms, and other third parties. Creators have complete discretion on how to price their content, how to charge for their content, and how to share the revenue for their content if desired. Free market forces and supply and demand will help to guide creators towards the optimal price for their content. In addition, the DAPP will provide tools such as content ranking charts with filters for price, type, genre, purchases, reviews, and more to further assist creators in determining the best pricing for their content.

Pricing options for creators will generally fall under three categories: **Free Content, One-Time Payment, Subscription.**

Content Curation

Content curation plays a crucial role in the DAPP token economy. In any industry, platform, or situation, having more data and information is always beneficial. Curation, ratings, and reviews are forms of information that bring many benefits to the DAPP community, such as:

- Filters out low quality content and creators, and promotes good content and creators.

- Helps consumers make more informed decisions when selecting which content to purchase.

- Provides a leading indicator on which content, music genre, artist, podcast, etc. are popular among consumers, and allows creators to adjust their content and pricing accordingly if desired.

- Aids with price discovery for all content, and if incentivized properly, can also aid with price discovery for lesser known content and creators. This is particularly important for indie artists, new podcasters, etc. who are just starting out and producing new content.

The more users curate data within the DAPP, the more these benefits will be realized by all parties. Therefore it becomes imperative to create a platform that encourages and incentivizes as much curation as possible. The DAPP incentive system will rewards users for curating and which also rewards creators for receiving good ratings and reviews.

3.2 DACC Multimedia Ecosystem with Vinci Partnership

Through strategic partnership with Vinci Smart Headphones, which is the first headphone with on-device artificial intelligence. Since its creation, Vinci has established a worldwide technology and fashion brand with its ecosystem partners, ranging from such as Spotify, SoundCloud, Baidu Music, and KKbox, to media partners such as MidemLab. Also, DACC core members also participated establishing the Vinci brand worldwide and won media acclamation in technology media such as Forbes, USA today, Engadget and Cnet. Through collaboration with Vinci, DACC team is equipment with experience that bring DACC blockchain technology to the worldwide developers and users.

![DACC - Decentralized Accessible Content Chain]

Figure 11. Strategic partnership with Vinci Smart Headphones to develop multimedia ecosystem

3.3 DACC Ecosystem Based on Global Distributed Crypto Community

DACC will leverage its community impact in crypto industry to expand its ecosystem starting from crypto medias, community and other content creators.

Core members of the DACC team have been building artificial intelligence technology, social media platforms and a global community in the past 12 years. Cumulatively, the team comprised of core members with total of up to 50 years of community experience with a user community with over 20M user base. We aim to bring technological innovations in blockchains, combining our experience in building community, first to the content media industry.

The DACC team has demonstrated consistent track record of building community. The team has brought about the formation of 3AM blockchain community, one of the largest blockchain community in Asia-Pacific regions with 10M user base in 5 months. The team also created one of the most popular blockchain group, 499-block community, with 100,000 followers.

Global crypto community of 200,000+ users with organic growth of 50,000 users per week, in major English speaking countries including USA, Europe, as well as Korea, Japan and China.

With leading community support, DACC ecosystem will build up its own ecosystem from digital media that close to its crypto community.

4. The DACC Foundation and Governance

4.1 The DACC Foundation

The DACC Foundation Pte. Ltd. ("**DACC Foundation**") is intended to be an exempt private company limited by shares that maintains and facilitates the democratic governance of the DACC for all members.

The DACC Foundation will consist of 3 Directors. These Directors will be scrutinized and selected strictly upon their merits and reputation within their respective industries. Key decision making with respect to the operations and applications of the DACC will be determined by majority vote of the DACC Foundation only. The DACC Foundation will operate upon 3 immutable guiding principles:

- **Impartiality.** Directors will act and vote independently, with only the best interests of the operations, applications, and members of the DACC in mind.

- Directors will be paid a nominal salary with respect to their work with the DACC Foundation. Outside of this, Directors shall not be allowed to partake in any profit making activities in relation to their responsibilities with the DACC Foundation.

The mandate of the DACC Foundation will include:

- Open and transparent governance of all DACC tokens issued and distributed
- Support for and advancement of the technologies related to the blockchain implementation within the DACC
- Ensuring the protection of users data and privacy
- All matters related to ecosystem membership

4.2 DACC Governance

The DACC Foundation will be registered as a separate legal entity with its own governance framework. This governance framework, as well as the DACC Foundation itself, will be advised by leading industry professionals and will implement best practices from other industry established foundations. Additional measures will be put in place to adequately respond to changes in industry regulations and requirements.

DACC blockchain will also adopt a series of development templates in the future:
- Token template
- DACC Foundation token issuance template
- DACC improvement plans template

5. DACC Token

5.1 DACC Token

DACC token is the currency for all transactions, gas fees and reward to block validators and storage providers: ("**DACC Token**"). Additionally, a special allocation of DACC Tokens will be used to develop the community (10%), DACC software development, system maintenance and security development (15%), also reward the special contributors and advisors (10%). See below for a detailed allocation table. The price of the DACC Token is 1 ETH for 200,000 DACC Tokens.

DACC Token holders will not be granted any shares and management rights over the DACC platform, DACC Foundation and/or any subsequent company being set up. DACC Token holders will not be entitled to any dividends or income from the DACC Foundation or the DACC platform as a result of holding the DACC Tokens.

5.2 Initial Token Issuance and Allocation

The DACC Foundation proposes to generate and issue DACC Tokens soon after the incorporation of the DACC Foundation. Upon issuance and prior to the completion of the DACC platform, DACC Tokens will be issued as tokens based on the ERC20 Ethereum Token Standard.

The initial issuance of DACC Tokens will consist of 30 billion tokens. The hard-cap of the Token Sale Sale is 30,829ETH.The allocation of this initial issuance is summarized in the following table.

	Allocation	Vesting Period	Release Schedule *After listing on exchange*
Angel Round Participants	10%	6 months	40% no lock-up; /30/30% after 3/6 months
Pre-Sale Round Participants	12%	3 months	50% no lock-up; 50% after 3 months
Open Round Participants	8%	3 months	90% no lock-up; 10% after 3 months
DACC Development Team	15%	2+ years	20% every 6 months
DACC Advisors	10%	2+ years	20% every 6 months
DACC Community and Global Partnership	10%		

DACC Foundation *Reserved for platform*	35%		
Total at Crowd-Sale Close	**30,000,000,000 DACC Tokens**		

Figure 1. Proposed initial allocation of DACC Tokens

The proceeds raised from the initial issuance of DACC Tokens are intended be used for the following purposes:
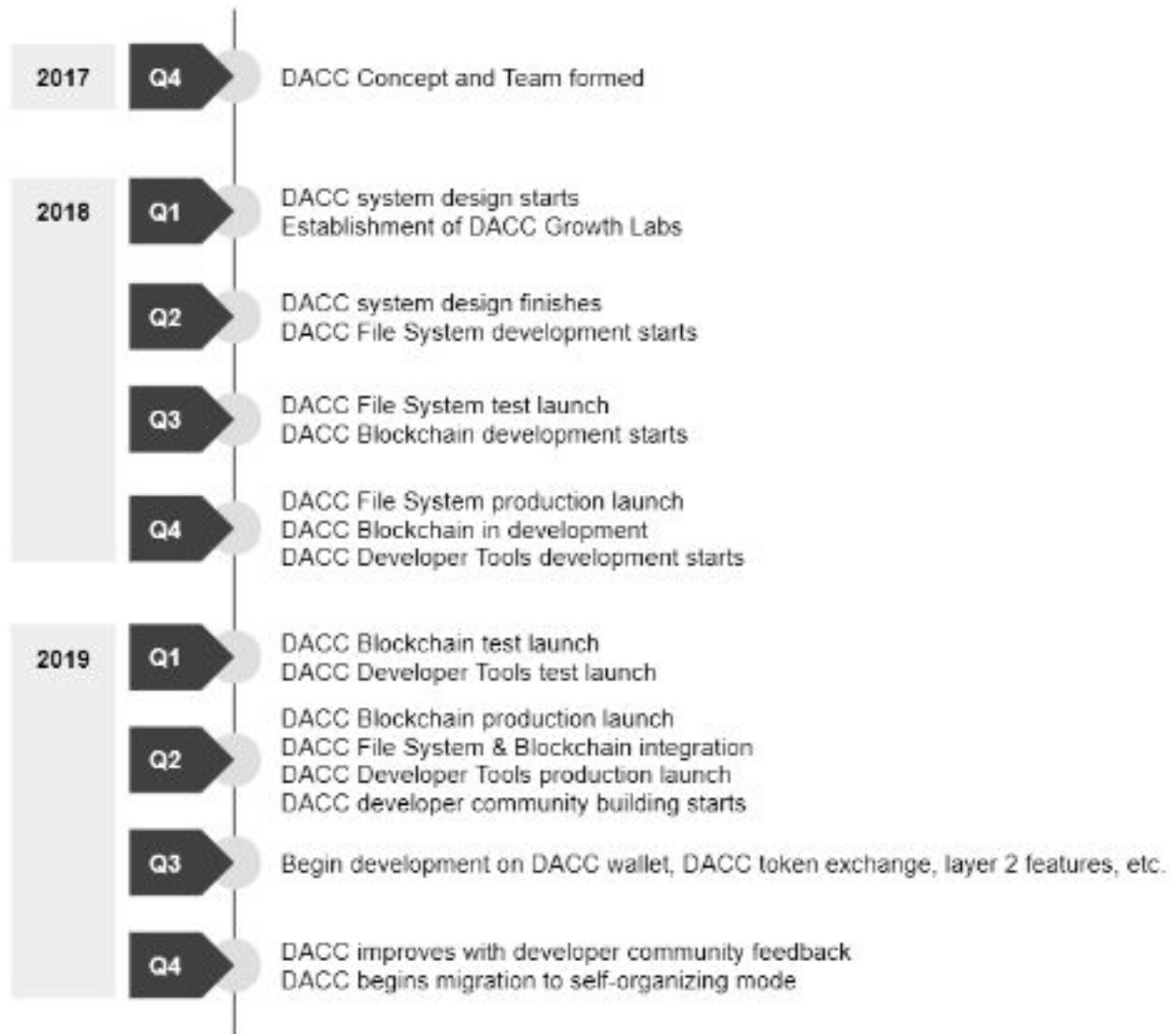
- To fund the research, development, and establishment of the DACC
- To hire and retain the talent and expertise required to build the DACC
- To cover the marketing and operating expenses related to the expansion and growth of the DACC
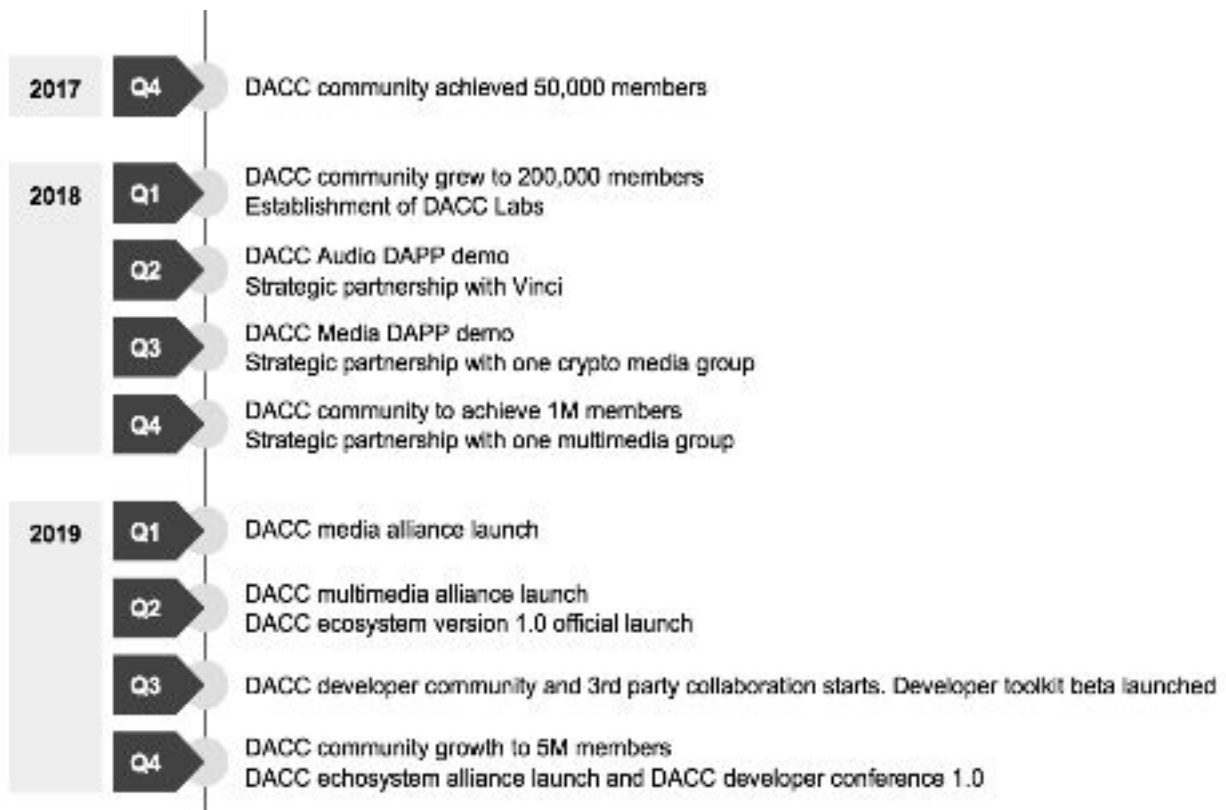
5.3 DACC Token Additional Issuance

DACC will hold the right to issue a certain amount, less than 5% of the total tokens each year, to develop DACC ecosystem and improve liquidity of DACC Token. Approval of such additional issuance will be subject to the governance regulations described in section 4.2.

6. DACC Project Roadmap

6.1 DACC Technical Project Roadmap

2017	Q4	DACC Concept and Team formed
2018	Q1	DACC system design starts Establishment of DACC Growth Labs
	Q2	DACC system design finishes DACC File System development starts
	Q3	DACC File System test launch DACC Blockchain development starts
	Q4	DACC File System production launch DACC Blockchain in development DACC Developer Tools development starts
2019	Q1	DACC Blockchain test launch DACC Developer Tools test launch
	Q2	DACC Blockchain production launch DACC File System & Blockchain integration DACC Developer Tools production launch DACC developer community building starts
	Q3	Begin development on DACC wallet, DACC token exchange, layer 2 features, etc.
	Q4	DACC improves with developer community feedback DACC begins migration to self-organizing mode

6.2 DACC Community and Ecosystem Roadmap

2017	Q4	DACC community achieved 50,000 members
2018	Q1	DACC community grew to 200,000 members Establishment of DACC Labs
	Q2	DACC Audio DAPP demo Strategic partnership with Vinci
	Q3	DACC Media DAPP demo Strategic partnership with one crypto media group
	Q4	DACC community to achieve 1M members Strategic partnership with one multimedia group
2019	Q1	DACC media alliance launch
	Q2	DACC multimedia alliance launch DACC ecosystem version 1.0 official launch
	Q3	DACC developer community and 3rd party collaboration starts. Developer toolkit beta launched
	Q4	DACC community growth to 5M members DACC echosystem alliance launch and DACC developer conference 1.0

7. DACC Core Team Members

The DACC Development Team comprises of talents from the world's top universities and institutions.

Vincent Nguyen
Team Leader
BS Eng (Columbia), MBA (MIT)
10 yrs finance, AI/IoT industries

Harold Li
Technical Leader
BS Comp Sci (BUPT), MS IT (CMU),
MS Applied Math (Peking Uni)
Tech lead at Meituan, Vinci, Flipboard

Jun Zhang
AI Tech Lead
Harvard Research Fellow, PhD Math (Rice)
Microsoft Principal Machine Learning Researcher
10 yrs deep learning experience

Jim Ai
Audio Tech Lead
PhD Physics (MIT)
Prev. at BBN, SRI Intl, Apple
12 yrs of audio, sound systems experience

Gina Hughes
Media and PR Lead
BS (Maryland)
Prev. Head of PR at Monster Headphones
Founder of TechieDiva.com

Cathy Cao
Media and PR Lead
BS MIT
3 years of AI company experience

8. Key Advisors and Strategic Participants

Jeffrey Wernick
Advisor
Entrepreneur, Private Investor. Bitcoin investor since 2009

- 40 years of investment experience including Uber and Airbnb
- In addition to DACC, also on QTUM advisory board
- Began career trading options/ futures while at the University of Chicago. Later worked at Salomon Brothers
- As investor, his focus expanded to the sharing economy, biomedical, and blockchain technologies

Walter Komarek
Advisor
Co-founder INK, Angel Investor, President and Managing Partner at Forbesfone

- Being a respected figure in the European telecom market, Walter Komarek is CEO at Angel Investment and a President and Managing Partner at Forbesfone (the largest Maltese telecom company). Walter Komarek is engaged in telecom, new technologies and blockchain startups.
- Having graduated from the University of Salzburg, Walter Komarek has proficient expertise in business strategy and business development.

Andy Tian
Advisor
CEO and Co-Founder of Asia Innovations Group

- Co-Founded AIG, whose flagship product Uplive is the highest monetizing mobile live video platform across APAC and Middle East
- Previously GM of Zynga China and also led Google's mobile business in China
- Head of the Gifto project and successfully launched the Gifto ICO

Philippe Bouaziz
Advisor
Founder of Prodware Group

- Philippe is known as one of the leading tech personas in Europe and Israel, sitting on numerous advisory boards for engineering and business schools
- Founded Prodware Group in 1989. Global IT solutions company (EPA: ALPRO) which has served 17,500 customers in 75 countries

Jared Polites
Advisor
Head of Marketing at Crypto Media Group

- Has been involved in over 40 projects blockchain projects to date as an ICO advisor
- These Projects have raised over USD 300M

Zhao Dong
Investor
Founder of DFund

- Majored in Software Engineering from Dalian Jiaotong University
- Chairman of Galaxy Investment Co Ltd, the largest Bitcoin OTC trading platform in China
- Early blockchain investor, used to operate one of the largest bitcoin mines in China
- 10 years of experience in software development, and was founder and CTO of Ink Weather

Oliver Li
Advisor
Partner of Draper Dragon Fund

- Over 10 years of VC experience with companies such as Sino-Century, Withub VC, and South River Capital
- Placed successful investments in software, semiconductor, gaming sectors, such as Jiaoda Withub (HK 8205), Hyron Software (Shenzhen 002195), Actions Semiconductor (Nasdaq ACTS), and Wind (financial data service company)

Luca Nichetto
Advisor
Founder and CEO of Nichetto Studio

- World renown art and industrial designer who has won international prizes, including the Gran Design Award, the Good Design Award, the IF Product Design Award, and the Elle Designer of the Year Award
- Art director for numerous design brands, exhibitions and competitions in Europe, the US, and Japan

Matthew Cheng
Advisor
Founder and Managing
Partner of Cherubic Ventures

- VC expert and founder of Cherubic Ventures, whose portfolio includes Coinbase, Flexport, Virgin Hyperloop One, Wish, Ring, TianGe Interactive, LiuliShuo, and Pinkoi
- Founding member at Tian Ge Interactive (1980:HK), China's largest live social video platform
- Selected to China's "Top 40 under 40" list from 2013-2016 by Cyzon

Justin Sun
Investor
Founder of TRON

- Founded and successfully launched the TRON (TRX) platform and ICO
- Founder and CEO of PEIWO, an app aspiring to become China's Snapchat and has recorded more than 4 billion chats to date
- Was named a Davos Global Shaper in 2014 and was also formerly the representative of Ripple in China

Omer Ozden
Advisor
Legal Counsel at ZhenFund
and DFund

- International securities lawyer with 20 years experience VCPE, IPO's, M&A, fund formation, and securities regulation
- Has worked with NetEase, Alibaba, Baidu, New Oriental, Suntech, E-Long and their investors, including SoftBank, Goldman Sachs, DragonTech, Warburg Pincus and Merrill Lynch
- Previously a Partner at Baker & McKenzie LLP and led the China securities transactional team on PE financings, IPOs and securities compliance
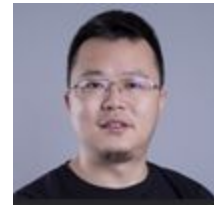
Yu Hong
Investor
Founder of 3AM Community
Founder of KFund
Founder of QYGAME

- Founder of 3AM Community, the largest blockchain community on wechat
- Launched KFUND, a professional investment agency focused on exploring global blockchain innovation opportunities
- Established Beijing Qingyun Interactive Technology Co., and has launched a number of S-level page tour products
- Elected as one of the top ten figures of Zhongguancun in 2012

David Zhu
Investor & Advisor
Cofounder of 3am Block
Community & DACC
Foundation Partner

- Serial Entrepreneur in the Social Media and Social Networks space
- Pioneer in the China mobile messaging space and founder of companies such as Tongxue.com
- Founder of Vinci Smart Headphones, world's first standalone headphones with built-in AI
- Founding Partner of Roark Fund which has invested in over 20 blockchain projects

Jia Tian
Investor & Advisor
Chief Scientist at BitFund.PE
and Metropolis VC

- AI industry veteran and former Senior Developer at Baidu and Alibaba
- Currently serves as the Chief Scientist at BitFund.PE, a bitcoin fund which was founded by Xiaolai Li and has been dedicated to supporting the bitcoin community since 2013
- Mr. Tian is also an advisor to multiple blockchain tech startups such as IOST, DATA, Hydro, and more
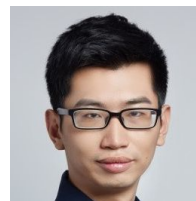
Haobo Ma
Investor
AELF CEO & Founder

- CEO & Founder of AELF, a decentralized cloud computing blockchain network. AELF currently has a market cap of over USD 250M
- CEO & Founder of Hoopox which develops blockchain as a service solutions
- CTO & Co-Founder of GemPay, China's first Bitcoin payment company
- Member of Blockchain Expert Committee of China Electronic Association, and a member of Blockchain Professional Committee of China Computer Society

Roy Li
Investor & Advisor
RuffChain CEO

- Fudan University Master Tutor
- Former Director of Technology for Nokia (North America), responsible for the development of OVI development platform and Symbian operating system
- Provides security consulting services for companies such as Symantec and VeriSign
- Has provided end-to-end consulting for ICO projects such as TNB, RNT, RCT, AIDOC, PST, RED, RUFF

Li Quan
Investor & Advisor
DFund Partner

- Well known investor in the the digital currency sector and provides end-to-end investment banking services for blockchain and ICO projects
- Has advised many blockchain and ICO projects, including TNB, QASH, AELF, Cybermiles, LLT, MobileCoin, Beechat, and more

Kevin Xu
Advisor
Founder of BlockVC

- Previously worked at DragonMind Group, a venture capital, private equity, and M&A firm in Beijing
- Held positions at Credit Suisse and Wecash focused on data science and machine learning
- Chairman of Blockchain Investment Academy (BIA)
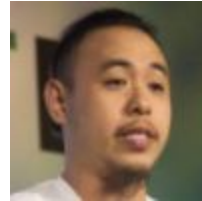
Huang He
Investor
Co-Founder and CEO of MailTime

- Serial entrepreneur and founder of 2 mobile communication companies - TalkBox and MailTime, which recently came out of Y Combinator (W16)
- Creator of the top podcaster in China with over 2 million views daily
- Co-founded and launched successful ICO for MDT (Measurable Data Token)

Wenxing Ge
Investor & Advisor
DFund Partner

- Well known investor in digital currency
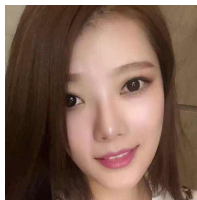
Grace Fan
Advisor
Brink Asset CEO

- Graduated from the department of Business Management, University of British Columbia
- BD Director of RuffChain
- Internet serial entrepreneur with years of experience of sales and marketing
- IoT enthusiast, in charge of several IoT operations projects

Ray Wu
Investor
Managing Partner at Skychee 'Ventures

- Former and partner at Cybernaut Capital Management
- Former Managing Director of HP's new business ventures.
- Veteran at Cisco Systems, and held several senior positions leading investment, M&A, and internal incubation
- Dual M.B.A. degree from Berkeley and Columbia
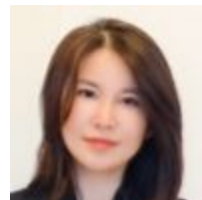
Kathy Chen
Advisor
Former CEO of Twitter Greater China

- Currently works as Area Vice President at IT and cloud company Citrix
- Previously General Manager of the SMS&P Greater China Team and General Manager of Cloud and Enterprise Product Group at Microsoft
- Previously General Manager of Eastern China Region at Cisco

Dou Wang
Investor
Founder of JIC Capital

- Blockchain Robot inventor.
- Global Community operations expert.
- Invested more than 100 blockchain projects all over the world with high returns.

9. Institutional Participants

The DACC is proud to have the support of the venture capital and blockchain investment communities.

D Fund

Consensus Capital

Nirvana Capital

CRYPTO CAPITAL

GENESIS

LEDGER CAPITAL

FUND

TRON

JRRCrypto

ASYNC.

FUNCITY 泛城资本

LD CAPITAL 了得资本

共识实验室 CONSENSUS LAB

IMO Ventures

CHERUBIC VENTURES

DKB FUND

Brink Asset

ROARK

Ofund

Kim's Capital 惊世·资本

FERRY VENTURE CAPITAL

SKYCHEE VENTURES

MSA 和玉另类投资

R

Bitrise Capital 比升资本

未来资本 FFUND.COM

JIC CAPITAL

TFUND

S·Capital 一致资本

FUTURE MONEY

10. Disclaimer

DACC Foundation does not make, and hereby disclaims, any representation or warranty with respect to or DACC Tokens (such as merchantability or fitness for particular purposes), except those expressly specified in this White Paper. Each participant's decision to participate in the DACC Token sale and purchase any DACC Token shall be made based on his/her own knowledge of the DACC platform and DACC Tokens and the information disclosed in this White Paper. Without prejudice to the generality of the foregoing, each participant will, upon the launch of the platform, accept DACC Tokens on an "as is" basis, irrespective of the technical specifications, parameters, performance or function thereof. This Whitepaper may be amended from time to time and the Foundation and Distributor shall be under no obligation to inform you of such amendment. You should read carefully this Whitepaper, and any amended version thereto, including the final version of this Whitepaper, as may be published at http://dacc.co.

DACC Foundation hereby expressly disclaims its liability and refuse to be liable for the following liabilities:

(1) any person's purchase of DACC Tokens in violation of any anti-money laundering, counter-terrorism financing or other regulatory requirements that are imposed in any jurisdiction;

(2) any claims or breach of intellectual property rights as a result of any content shared by the content provider on the DACC platform;

(3) any person's purchase of DACC Tokens in violation of any representation, warranty, obligation, covenant or other provision under this White Paper, which results in the failure of paying and withdrawing DACC Tokens;

(3) termination of the DACC Token crowdsale for any reason;

(4) failure or termination of the DACC platform's development which results in the failure to deliver DACC Tokens;

(5) delay or rescheduling of the DACC platform's development and resulting failure to meet any published schedules;

(6) any error, flaw, defect or other issues in the source code of the DACC platform;

(7) any malfunction, breakdown, collapse, rollback or hard forking of the original public chain the DACC platform replies on;

(9) utilization of the proceeds raised through the DACC Token sale;

(10) failure to promptly and completely disclose any information relating to the development of the DACC platform;

(11) any participant's divulgence, loss or destruction of the private key to his/her wallet for cryptocurrency or cryptographic (in particular the private key to the DACC Token wallet);

(12) any default, breach, infringement, breakdown, collapse, service suspension or interruption, fraud, mishandling, misconduct, malpractice, negligence, bankruptcy, insolvency, dissolution or winding-up of any third-party crowdfunding DACC platform or exchange for DACC Token;

(13) any difference, conflict or contradiction between this White Paper and the agreement between any participant and any third party crowdfunding portal;

(14) trading or speculation of DACC Tokens by any person;

(15) listing or delisting of DACC Tokens on or from any exchange;

(16) DACC Tokens being classified or treated by any government, quasi-government, authority or public body as a type of currency, securities, commercial paper, negotiable instrument, investment instrument or otherwise that results in it being banned, regulated or subject to certain legal restrictions;

(17) any damage, loss, claim, liability, punishment, cost or other adverse impact that is caused by, associated with, in connection with, incidental to or relevant to the risk factors disclosed in this White Paper.

This is a conceptual white paper describing our proposed DACC. This whitepaper may be amended or replaced at any time. There are no obligations to update this whitepaper or to provide recipients with access to any information beyond what is provided in this whitepaper. Readers are notified as follows:

Not available to all persons. The DACC platform and DACC Tokens are not available to all persons. Participation may be subject to certain restrictions and requirements, including the need to provide certain information and documents.

No offer of regulated products in any jurisdiction. DACC Tokens are not intended to constitute securities or any other regulated product in any jurisdiction. This whitepaper does not constitute a prospectus nor offer document of any sort and is not intended to constitute an offer or solicitation of securities or any regulated product in any jurisdiction. This whitepaper has not been reviewed by any regulatory authority in any jurisdiction.

No advice. This whitepaper does not constitute advice in relation to whether you should participate in the DACC platform or acquire any DACC Tokens. Nor should this whitepaper be relied upon with any contract or purchasing decision in relation to the DACC platform and DACC Tokens.

No representations or warranties. No representations or warranties are made as to the accuracy or completeness of the information, statements, opinions, or other matters described in this document or otherwise communicated in connection with the DACC Project. Without limitation, no representation or warranty is given as to the achievement or reasonableness of any forward-looking or conceptual statements. Nothing in this document is or should be relied upon as a promise or representation as to the future. To the fullest extent permitted under applicable law, all liability for any loss or damage whatsoever, whether foreseeable or not, arising from or in connection with any person acting on this White Paper or any aspect of it, notwithstanding any negligence, default, or lack of care, is disclaimed. To the extent liability may be restricted but not fully disclaimed, it is restricted to the maximum extent permitted by applicable law.

English version prevails. This whitepaper is provided in an official English version. Any translation is for reference purposes only and is not certified by any person. If there is any inconsistency between a translation and the English version of this White Paper, then the English version prevails.

The DACC Development Team and DACC Foundation will strive to make the DACC Project as successful as possible. However, digital assets and platforms involve risk, and success is not guaranteed. Prospective DACC users and DACC Token holders must assess their risks and their ability to bear those risks. In addition, all necessary professional advice, including in relation to tax and accounting treatment, must be taken prior to participating in the DACC platform.

NOTICE TO RESIDENTS OF THE UNITED STATES
The offer and sale of this token has not been registered under the U.S. Securities Act of 1933, as amended (the "Securities Act"), or under the laws of certain states as this token should not be taken as securities. This token may not be offered, sold or otherwise transferred, pledged or hypothecated except as permitted under the act and applicable state laws pursuant to an effective registration statement or an exemption therefrom.

NOTICE TO RESIDENTS OF CANADA
Unless permitted under legislation, the holder of this token must not trade the token before the date that the issuer becomes a reporting issuer in any province or territory of Canada.

NOTICE TO RESIDENTS OF CHINA
The tokens are not being offered or sold and may not be offered or sold, directly or indirectly, within the People's Republic of China (for such purposes, not including the Hong Kong and Macau Special Administrative Regions or Taiwan), except as permitted by the laws and regulations of the People's Republic of China.

NOTICE TO RESIDENTS OF THE UNITED KINGDOM

applicable laws and regulations (collectively referred to herein as forward-looking statements). Except for statements of historical fact, information contained herein constitutes forward-looking statements and includes, but is not limited to, the (i) projected financial performance of DACC Token; (ii) completion of, and the use of proceeds from, the sale of DACC Token being offered during the token sale; (iii) the expected development of the business, projects and joint ventures; (iv) execution of DACC Token's vision and growth strategy, including with respect to future M&A activity and global growth; (v) sources and availability of third-party financing for DACC Foundation's projects; (vi) completion of the platform's projects that are currently underway, in development or otherwise under consideration; (vii) renewal of the platform's current customer, supplier and other material agreements; and (viii) future liquidity, working capital, and capital requirements. Forward-looking statements are provided to allow potential participants the opportunity to understand management's beliefs and opinions in respect of the future so that they may use such beliefs and opinions as one factor in evaluating an investment. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual performance and financial results in future periods to differ materially from any projections of future performance or result expressed or implied by such forward-looking statements. For further explanation of the risk involved in the DACC platform's community please consult the documents as issued by DACC Foundation.

Although forward-looking statements contained in this presentation are based upon what management of DACC Foundation believes are reasonable assumptions, there can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The DACC platform undertakes no obligation to update forward-looking statements if circumstances or management's estimates or opinions should change except as required by applicable securities laws. The reader is cautioned not to place undue reliance on forward-looking statements.

11. Risk Factors

There are a number of risks involved in this DACC Token sale, as well as the future development, maintenance and running of DACC platform. Some of these risks are beyond the control of the DACC Foundation and the DACC Foundation's liability is limited as set out in the Disclaimers. Each participant should comprehend, consider and evaluate carefully the risks described below in addition to any other available information before committing to the DACC Project.

Each participant should pay particular attention to the fact that the DACC platform does not have any specific physical presence. In addition, the legal and regulatory position of DACC platform may vary depending on the facts and circumstances. They may therefore fall within the purview of one or more jurisdictions, at least to some extent, and the legal and regulatory implications may therefore be unexpected.

Participation in the DACC Project shall be taken as an action after careful and prudent analysis and evaluation, and will be deemed as the relevant participant having been fully informed, advised and willing to bear all of the risks associated with it.

1. AMENDMENT OR TERMINATION OF THE DACC PROJECT

At the date of this White Paper, the DACC Foundation is still seeking legal advice on a number of matters including but not limited to the governance structure, operational plan and the DACC Token sale process. Pending such advice, some or all aspects of the the White Paper and other materials may need to be amended from time to time and the DACC Foundation and distributor shall be under no obligation to inform you of such amendment. You should read carefully this White Paper, and any amended version thereto, including the final version of this White Paper, as may be published at http://dacc.co, as announced on the DACC website. The participant should be aware of the risks associated with any possible changes, which may have adverse effects on the utility and legitimacy of DACC Token.

2.   LIMITED AVAILABILITY OF SUFFICIENT INFORMATION

The DACC Platform is still at an early development phase as of the date of these White Paper. Its governance structure, fees, purpose, consensus mechanism, algorithm, code, infrastructure design and other technical specifications and parameters may be updated and changed frequently without notice. While the White Paper contains the key information currently available in relation to DACC Platform, it is subject to adjustments and updates from time to time, as announced on the Website. Participants will not have full access to all the information relevant to DACC. Nevertheless, given the nature of the DACC platform, it is anticipated that significant milestones and progress reports will be announced on the Website, together with Subscription options as applicable.

3.   IMMEDIATE USE OF TOKEN SALE PROCEEDS AND NO REFUND POLICY
Initially the DACC Foundation will operate with limited funding and will therefore rely heavily on the DACC Token sale proceeds raised in the DACC Project in order to develop the DACC platform and the operation of the DACC Foundation. By participating in the DACC Foundation you acknowledge that the DACC Foundation shall be entitled to utilize the proceeds raised immediately and, in the event that the development of the DACC platform is terminated for whatever reason, you will not be entitled to refund of the part of the proceeds that were spent already by the DACC Foundation.

4.   REGULATORY MEASURES
Cryptographic tokens may be overseen by the legal and regulatory authorities of a number of jurisdictions globally. The DACC Foundation may receive notices, queries, warnings, requests or rulings from one or more authorities upon short notice, or may even be ordered to suspend or terminate any action in connection with the DACC Project as a whole without prior notice. Furthermore, many aspects of DACC Token also involve untested areas of law and regulation, and could be subject to new laws or regulations. Therefore, their legal and regulatory outcome in all relevant jurisdictions is not possible to predict. The planning, development, marketing, promotion, execution or otherwise of DACC platform or the DACC Project may be seriously affected, hindered, postponed or terminated as a result of such new laws and/or regulations. Since regulatory policies can change with or without prior notice, any existing regulatory permissions for or tolerance of DACC Token or the DACC Project in any jurisdiction may be withdrawn without warning. DACC Token could be deemed from time to time as a virtual commodity, a digital asset or even as money, securities or currency in various jurisdictions and

therefore could be prohibited from being sold, purchased, traded, distributed or held in certain jurisdictions pursuant to local regulations. In turn, the DACC platform could be deemed to be a regulated or restricted product. There is no guarantee that DACC Token and DACC platform can maintain any particular legal or regulatory status in any particular jurisdiction at any time.

5.   CRYPTOGRAPHIC PROTECTIONS

Cryptography is evolving and there can be no guarantee of security at all times. Advancement in cryptography technologies and techniques, including but not limited to code cracking, the development of artificial intelligence and/or quantum computers, could be identified as risks to all cryptography-based and/or blockchain based systems including DACC Token and DACC platform. When such technologies and/or techniques are applied to DACC Token and DACC platform, adverse outcomes such as theft, loss, disappearance, destruction, devaluation or compromising of DACC Token may result. The security of DACC Token and DACC platform cannot be guaranteed as the future of cryptography or security innovations is unpredictable.

6.   ABANDONMENT OR DEVELOPMENT FAILURE
Due to the technically complex nature of the DACC platform, the DACC Foundation could face difficulties from time to time that may be unforeseeable and/or unresolvable. Accordingly, the development of DACC platform could fail, terminate or be delayed at any time for any reason (including but not limited to a lack of funds). Development failure or termination may render DACC Token not transferable, of reduced or no utility whatsoever, and/or obsolete.

7.   THEFT OF TOKEN SALE PROCEEDS
There may be attempts to steal the DACC Token Sale proceeds. Such theft or attempted theft may impact the ability of the DACC Foundation to fund the development or maintenance of DACC Token and DACC platform. While the DACC Foundation will endeavour to adopt industry best practices to keep the Token Sale proceeds safe (including but not limited to the use of cold storage and multi-signature authentications), successful cyber thefts may still occur.

8.   FLAW IN THE SOURCE CODE
While the DACC Foundation adopts quality assurance procedures to help ensure the source codes as accurately as possible reflect their intended operation, the flawlessness of the source codes cannot be guaranteed. They may contain bugs, defects, inconsistencies, flaws or errors, which may disable some functionality, create vulnerabilities or cause instability. Such flaws may compromise the predictability, usability, stability, and/or security of the DACC Token and DACC platform. Open source codes rely on transparency to promote community-sourced identification and solution of problems within the code.

9.   UNPERMISSIONED, DECENTRALIZED AND AUTONOMOUS LEDGER
The DACC platform is being developed to serve various distributed ledger systems including but not limited to Ethereum, which are unpermissioned protocols that could be accessed and used by anyone. In addition to the use of decentralized ledgers, the DACC Foundation intends to make use of supporting technologies that also operate on decentralized ledgers. The utility and integrity of the DACC platform relies on the stability, security and popularity of these decentralized ledgers. DACC platform is envisaged to be an open, decentralized community and its composition can include users, supporters, developers, DACC Token holders and other

participants worldwide who may or may not be connected with the DACC Foundation in any manner. Given the diversity of the underlying technologies, the DACC platform is intended to be decentralized and autonomous in nature as far as its maintenance, governance and evolution are concerned.

10.   COMPROMISED SECURITY

The DACC platform relies on open source software and unpermissioned decentralised distributed ledgers including but not limited to Ethereum. Accordingly, anyone may intentionally or unintentionally compromise the core infrastructural elements of DACC platform and its underlying technologies. This may consequently result in the loss of any digital tokens held on the DACC Token wallet and may cause the utility of DACC Token to fall.

11.   DISTRIBUTED DENIAL OF SERVICE" ATTACKS

As an open source project, DACC platform is connected to a number of public and unpermissioned systems and therefore may suffer cyber-attacks, including "distributed denial of service" at any time. These attacks may temporarily or permanently impair, stagnate or paralyze the network of the DACC platform system. This may result in delays to the recording of transactions or inclusion of transactions in the blocks of the relevant blockchain. In severe cases, DACC platform may also become unusable for an extensive and undefined period of time

12.   INADEQUACY OF PROCESSING POWER

The ramp up of the DACC platform may be accompanied by sharp increases in transaction numbers and demand for processing power. If the demand for processing power outgrows that forecasted, the network of the DACC platform could be destabilized and/or stagnated. This may create opportunities for fraudulent activities including but not limited to false or unauthorized transactions (such as "double-spending") to arise. All these may adversely impact the usability, stability and security of the DACC platform.

13.   UNAUTHORIZED CLAIM OF DACC Token

DACC Token can be claimed in bad faith by any person who successfully gains access to the holder's wallet, email or if applicable, the participants account they have registered on the Website. This can be as a result of deciphering or cracking the holder's password or private key, phishing scams and/or other hacking techniques. Subsequently, these DACC Tokens may be sent to anyone and such remittance is not revocable or reversible. It is recommended that all DACC Token holders should take appropriate security measures to safeguard their wallets (including but not limited to the use of two-factor authentication). Each DACC Token holder is responsible for the security of their wallet, email and Verification Account on the Website at all times.

14.   LOSS OF PRIVATE KEY

The loss or destruction of a private key will permanently and irreversibly deny the holder access to their DACC Token. DACC Token are controlled only by the validation of both the relevant unique public and private keys through the local or online wallet. While it is recommended that

all DACC Token holders protect and securely store their private keys, each holder is responsible for safeguarding the private keys applicable to their own wallets.

15.   FORKING

DACC Token is developed on the Ethereum blockchain, which is an open source protocol. Once released to the open source community, anyone may develop a patch or upgrade for the source code of Ethereum without prior permission by anyone else. The acceptance of patches or upgrades by a significant, but not necessarily overwhelming percentage of the Ethereum holders could result in a "fork" in the Ethereum blockchain.

The temporary or permanent existence of forked blockchains could adversely impact the operation of DACC platform and the utility of DACC Tokens. Such a fork can undermine the sustainability of DACC platform ecosystem, and may destroy or frustrate the DACC platform. While a fork in the blockchain could possibly be rectified by community-led efforts to re-merge the two separate branches, success is not guaranteed and could take an undetermined amount of time to achieve.

16.   POPULARITY

The utility of DACC Token is dependent on the popularity of the DACC platform. DACC Token may not be popular, prevalent or widely distributed after the Token Launch. DACC Token may remain marginalized in the long run, appealing to only a minimal fraction of users. Also, it may be the case that speculators could end up being key drivers of DACC Token demand. An absence of active users or low level of utilization may negatively affect the long-term development and future of the DACC platform, and reduce or obviate the utility of DACC Token.

17.   MARKET LIQUIDITY

After the DACC Token Launch, the DACC Foundation is not responsible for the subsequent circulation and trading (if any) of DACC Token. DACC Token is not money, legal tender or currency, fiat or otherwise, issued by any individual, entity, central bank or national, supra-national or quasi-national organization, nor is it backed by any type or quantity of assets, property or credits, nor does it represent any entitlement to any distributions of profits, dividends, or any other returns or payments of any kind. The utility of DACC Token is solely based on the views expressed by buyers and sellers. There is no obligation of the DACC Foundation nor anyone else to redeem, repurchase or acquire any DACC Token from any DACC Token holder. There is no guarantee or assurance that there may be a market where holders may readily trade DACC Token.

18.   PRICE VOLATILITY

The circulation of DACC Token is not the responsibility of the DACC Foundation, and the DACC Foundation will not support or otherwise facilitate the secondary trading of DACC Token. As a result, DACC Tokens may not circulate freely or widely, and may not be listed on any secondary markets.

Many cryptographic tokens have volatile prices. Even if DACC Token do circulate on secondary markets, large fluctuations in price over short timeframes may occur. Such fluctuations could result from market dynamics (including but not limited to speculations), regulatory changes, technical advancements, exchange availabilities and other factors that impact the equilibrium between token supply and demand.

19.   DACC FOUNDATION'S EXPOSURE TO CRYPTOGRAPHIC TOKENS

After the completion of this DACC Token Sale, the DACC Foundation expects that a certain portion of the proceeds may be converted into and/or held in other cryptocurrencies or cryptographic utility tokens. The DACC Foundation expects to convert an appropriate proportion of cryptographic utility tokens received into fiat currencies at the sole and absolute discretion of the directors of the DACC Foundation. For the avoidance of doubt, no DACC Token holder has any right, title or interest in any such fiat currencies and/or cryptographic tokens.

20.   CONFLICT OF INTERESTS

As the initial supplier and architect of the DACC platform, the DACC Foundation has substantial influence in the set-up, governance and initial operations of the DACC Foundation. The DACC Foundation may undertake its activities, and exercise applicable rights, powers and remedies, even if this involves an actual or perceived conflict of duty, or any person has a personal interest in their exercise.

21.   POTENTIAL CONCENTRATED OWNERSHIP OF DACC TOKENS

Immediately after the completion of the DACC Project, a number of individuals, including but not limited to the directors, advisors and early backers of the DACC Foundation, may directly or indirectly own significant proportion of total available DACC Tokens. These significant DACC Token holders may, acting alone or in concert, not necessarily make decisions that are in the best interests of the other DACC Token holders or the wider DACC platform community as a whole.

22.   POTENTIAL COMPETITORS

The DACC platform's underlying infrastructural systems will utilise public decentralized ledger which are open source in nature. Therefore, anyone can copy, replicate, change, enhance, reproduce, re-engineer, modify, reprogram or otherwise utilize the source code and/or underlying protocol of the DACC platform. While the DACC Foundation is proceeding with various filings for patent and trademark protection for various components of DACC platform and will defend its intellectual property rights, should a breach of such intellectual property rights take place. The DACC Foundation cannot guarantee the prevention of competitors from entering the market with similar technology. Should this happen, such competitors may consequently compete with or even outperform the DACC platform, and may render the DACC platform obsolete. There have been and will continue to be a number of competing blockchain-based platforms that dedicate significant human, information technology and financial resources to the creation and deployment of various decentralized applications and/or smart contracts.

23.   THIRD PARTY DEVELOPERS AND SUPPLIERS

By virtue of its decentralized factor, DACC platform will aggregate systems and contents from third parties. These will be provided by third parties, including users of the DACC community, or shall be from other decentralized ledger projects or open source technologies. Some or all of these third-party applications, programs or services may connect into or be set up on DACC platform which are beyond the DACC Foundation's restriction, vetting, authorization or control. The DACC Foundation neither intends nor has the capabilities to act as an authority to

scrutinize to any extent any applications, programs or services to be developed on, connected to or otherwise associated with the DACC platform.

24.   POTENTIAL MISUSE OF DACC PLATFORM ITS TECHNOLOGIES AND BRAND
Services or programs which may be banned, restricted or deemed immoral in certain jurisdictions, such as gambling, betting, sweepstake, pornography, terrorism, hate crime and otherwise, could take advantage of the unpermissioned nature of DACC platform to develop, promote, market or operate. Regulators of a number of jurisdictions may accordingly take administrative or judicial actions against such programs, applications, services or even the relevant developers or users thereof. Any penal action, sanction, crackdown or other regulatory effort made by any government, quasi-government, authority or public body (including but not limited to any regulatory body of any jurisdiction) may significantly deter existing or potential users away from using DACC platform or holding DACC Token. In such circumstances, the prospects and viability of DACC platform may be negatively impacted. There is no guarantee that the DACC platform will be free from all inappropriate, illegal or immoral use at any time.

25.   PRIVACY AND DATA RETENTION ISSUES
As a part of the DACC Token Sale, the verification processes and the subsequent operation of the DACC platform, the DACC Foundation may collect personal information from Participants. The collection of such information is subject to applicable laws and regulations. All information collected will be used for purposes of Token Sale and operations of the DACC platform, thus it may be transferred to contractor, service providers and consultants worldwide as appointed by the DACC Foundation. Apart from external compromises, the DACC Foundation and its appointed entities may also suffer from internal security breach whereby their employees may misappropriate, misplace or lose personal information of participants. The DACC Foundation may be required to expend significant financial resources to alleviate problems caused by any breaches or losses, settle fines and resolve inquiries from regulatory or government authorities. Any information breaches or losses will also damage the DACC Foundation's reputations, thereby harming its long-term prospects.

26.   GENERAL RISKS RELATING TO THE USE OF THE INTERNET OR OTHER ELECTRONIC MEDIUM
Without limiting the foregoing risks, any communication or transaction via or information (including any document) transmitted via the internet or other electronic medium involves risks and by participating in the DACC Project or utilizing the DACC platform, you acknowledge that you understand and accept the following risks:

•   We and/or Third Parties may use such authentication technologies as we deem appropriate. No authentication, verification or computer security technology is completely secure or safe. You agree to bear all risks of unauthorized access/use, hacking or identity theft.
•   The internet or other electronic media (including without limitation electronic devices, services of third party telecom service providers such as mobile phones or other handheld trading devices or interactive voice response systems) are an inherently unreliable form of communication.
•   Any information (including any document) transmitted, or communication or transactions made, over the internet or through other electronic media (including electronic devices, services of third party telecom service providers such as mobile phones or other handheld trading

devices or interactive voice response systems) may be subject to interruption, transmission blackout, delayed transmission due to data volume, internet traffic, market volatility or incorrect data transmission (including incorrect price quotation) or stoppage

• As a result of such unreliability:

o there may be time-lags, delays, failures or loss of data or loss of confidentiality in the transmission of data and receipt of communications; and

o while the DACC Foundation may believe certain data to be reliable, there may be no independent basis for it to verify or contradict the accuracy or completeness of such data. This is not an exhaustive list of all the consequences arising from such unreliability.

• Participants are solely responsible for preventing anything which may be harmful to any equipment that they use in connection with DACC Token or the DACC platform (including any computer virus, malicious program or harmful component) from affecting any such equipment, regardless of whether it originated in connection with DACC Token or the DACC platform.

27. TAX MATTERS RELATING TO DACC FOUNDATION'S OPERATIONS
Tax laws and regulations are highly complex and subject to interpretation. Consequently, the Foundation is subject to changes in tax laws, treaties and regulations. DACC Foundation's income tax expense is based upon its interpretation of the tax laws in effect at the time when the expense was incurred. A change in these tax laws, treaties or regulations, or in the interpretation thereof, which is beyond the Foundation's control, could result in a materially higher tax expense, which in turn may limit the financial resources available to the Foundation. Also, as the DACC Foundation actively solicits interests for the DACC Project in multiple jurisdictions, such solicitations may lead to increased tax exposures for the DACC Foundation. In addition, the DACC Foundation's tax payments may be subject to review or investigation by tax authorities from time to time. If any tax authority successfully challenges the DACC Foundation's operational structure, or if the DACC Foundation loses a material tax dispute, or any tax challenge of the DACC Foundation's tax payments is successful, the DACC Foundation's tax liabilities could increase substantially and the DACC Foundation's financial resources could be adversely impaired.

28. TAX MATTERS RELATING TO PARTICIPATION IN THE DACC Project
Participation in the DACC Project may have tax reporting implications and liabilities for participants from certain jurisdictions. Such liabilities shall be borne by the participants alone and all participants are advised to consult their tax advisors prior to participating in the DACC Project.

29. PERSONAL CONNECTIONS WITH PARTICULAR JURISDICTIONS
Residents, tax residents or persons having a relevant connection with certain jurisdictions are excluded from the DACC Token Sale. Changes in a participant's place of domicile or the applicable law may result in a participant violating legal or regulatory requirements of the applicable jurisdiction.
Purchasers are responsible for ensuring that the delivery, holding, use or exchange of DACC Token is, and remains lawful despite changes to applicable laws, residence and circumstances.

30. INCOMPLETE INFORMATION REGARDING THE DACC PLATFORM
Participants will not have full access to all the information relevant to DACC Token and/or DACC

platform. The DACC Foundation is not required to update participants on the progress of DACC platform.

31. FURTHER DACC TOKEN SALES AND DEVELOPMENT AND SALE OF ADDITIONAL TOKENS

The DACC Foundation may, from time to time, and without prior notice or consultation, sell additional DACC Token outside of the DACC Token Sale from DACC Token's reserve. Further, the DACC Foundation may develop and sell additional DACC Token in respect of the DACC platform, or otherwise raise funding for the DACC platform through any other means it deems necessary. Purchasers will not necessarily receive notice of the sale of additional DACC Token or of any other tokens or fundraising means.

32. BREACH OF INTELLECTUAL PROPERTY RIGHTS

The DACC Foundation and DACC platform will endeavour to monitor the content shared by content providers and users to avoid any breach of intellectual property rights. There is no guarantee that the content on the DACC platform will not be subject to any claims or will not breach any intellectual property rights.