



Blocknubie

A Decentralized Ecosystem for Blockchain Startups

Technical Summary

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Abstract

Blocknubie is a startup platform and marketplace that acts as a bridge between off-chain organizations, startups and the Blockchain ecosystem. The founders of Blocknubie have determined through detailed market analysis and research^{1,2} that there is a global market for an innovative startup platform designed specifically for bridging this gap.

At the highest level, a blockchain is a “chain” of “blocks”, where the blocks contain data, and the chain consists of cryptographic links between blocks. It can be used as a digital ledger^{3,4}, by leveraging a cryptographic validation protocol which has been deployed, and is verified using a peer-to-peer (P2P) network. It is important that this validation mechanism exists in a P2P format, as it ensures trust in the blockchain network, as any fraudulent manipulation of transactions would require that the transactions are propagated across the network, and ensures that the network can be viewed as a single source of truth⁵ by all relevant parties.

Digital applications⁶ (DApps), allow developers to deploy applications that they have developed using smart contracts^{7,8} to a distributed blockchain. These applications are capable of using information fetched from outside the blockchain that they are

¹ <http://www.gemconsortium.org/>

² https://blocknubie.io/documents/Blocknubie_Whitepaper_0.90.pdf

³ https://en.wikipedia.org/wiki/Distributed_ledger

⁴ <https://www.gartner.com/smarterwithgartner/the-cio-s-guide-to-blockchain/>

⁵ https://en.wikipedia.org/wiki/Single_source_of_truth

⁶ <https://github.com/ethereum/wiki/wiki/White-Paper#applications>

⁷ https://en.wikipedia.org/wiki/Smart_contract

⁸ <https://www.coindesk.com/information/what-is-a-decentralized-application-dapp/>

executing on as well as from the blockchain itself. These smart contracts are executed as part of the validation of a block transition on the underlying blockchain.

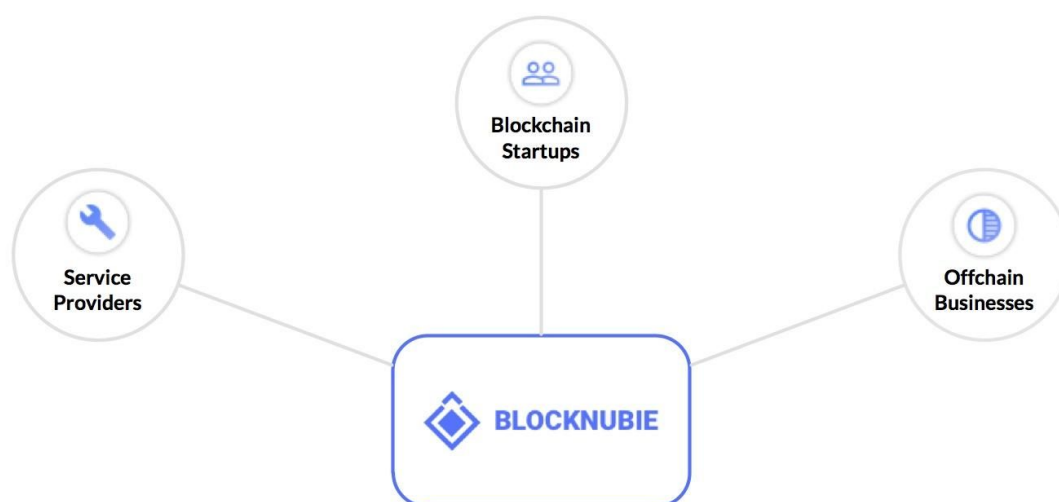
This technical summary outlines the planned architecture and structure for the Blocknubie ecosystem as a whole, and defines the processes that will be used to enable both internal and external developers to interact with the Blocknubie platform, as well as the planned interaction process for end user consumers and services providers. This summary is provided as a working document, and will be expanded upon further in future documents.

At a high level, it is envisaged that the platform will utilise an existing blockchain as the core of its structure, upon which extensions will be developed and released for both internal and external interaction. This will be architected in such a way that data can flow both in and out of the platform, enabling developers to effectively implement any DApp that can be imagined, all the while enabling startups and businesses using the platform to improve their business processes and optimise their probability of success.

The Blocknubie Platform

Overview

BlockNubie Ecosystem Overview



At a high level, the Blocknubie platform will lie at the core of an ever expanding system of providers, who exist both on- and off-chain. This will allow for connection between both existing physical and digital enterprises and new startups, through a series of DApps. Essentially, through its core platform, Blocknubie will offer a means to connect both internal and external services with on- and off-chain businesses in order to offer their services to Blockchain startups.

It is envisaged that at the absolute core of this platform is an Open⁹ RESTful¹⁰ API¹¹, through which all parties will interact. This will allow any service provider to have

⁹ https://en.wikipedia.org/wiki/OpenAPI_Specification

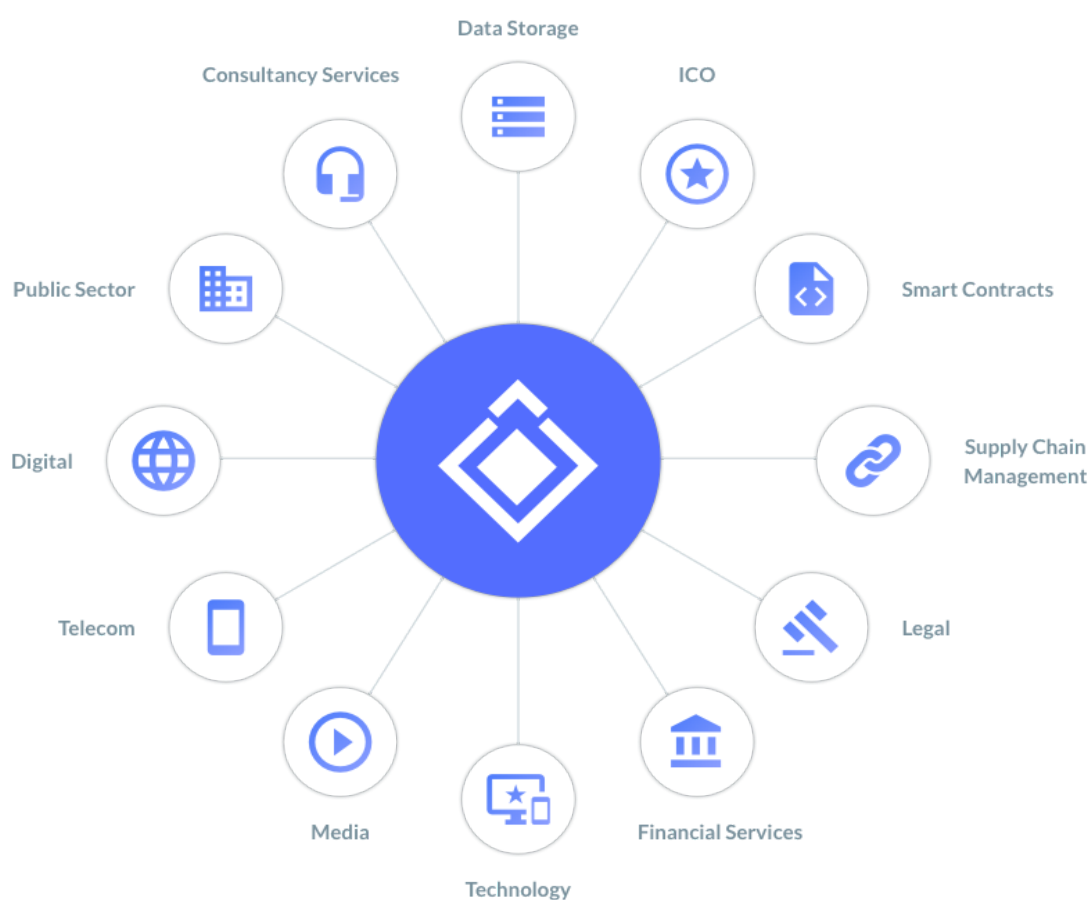
¹⁰ https://en.wikipedia.org/wiki/Representational_state_transfer

¹¹ https://en.wikipedia.org/wiki/Application_programming_interface

meaningful interactions with the Blocknubie platform. This API will be built through several phases, with initial phases aimed at allowing both Blocknubie and third parties to create with, and interact with Blocknubie tokens (NUB) and their wallets. Later phases will be concerned with allowing interactors to deploy their own smart contracts and DApps to the Blocknubie platform, and through these to deploy their service(s) and offering(s) to be taken up by Blockchain startups and enterprises.

Blocknubie Decentralized Applications

Internal and external parties will be able to present their offering(s) and service(s) for use by Blockchain startups via the Blocknubie marketplace. This marketplace will be realised through the provision of a core repository of smart contracts and DApps. The repository, like all Blocknubie components, will expose an Open API for interaction by external parties and services.



By providing this marketplace, Blocknubie will be able to position itself at the core of all services and features of the platform, allowing for full visibility and transparency over all services. This will allow for Blocknubie assured quality control, both through automated processes and manual processes, to ensure that all services that may

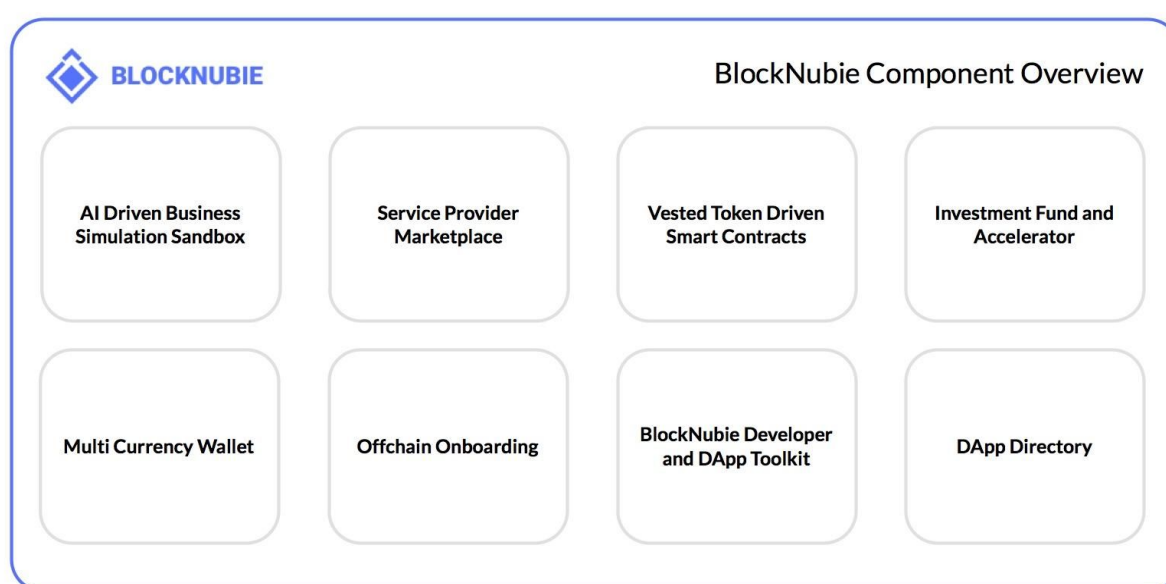
potentially used by Blockchain startups meet Blocknubies minimum requirements for security, reliability and robustness.

By allowing providers to interact via the marketplace via an Open API, this will provide a reliable and replicable deployment mechanism to service providers, something that can be unclear and/or confusing at present. By allowing new Blockchain startups to interact with and provision service(s) and offering(s) from Blocknubie providers via an Open API, Blocknubie will be able to provide a standard, consistent and replicable provisioning of on-chain services to new startups.

All provisioning and deployment of services, via smart contracts initiated via the Blocknubie Open API, both for providers and consumers, will be self-documenting, with critical provisioning information recorded on the Blockchain at the core of the Blocknubie platform. Allowing providers and consumers to interact in such a fashion will provide all involved parties with security, as the contracts for services will essentially be documented in an immutable fashion. Any later changes to services/provisioning will be completed under the same process, allowing for those changes to be documented in the same secure and reliable way.

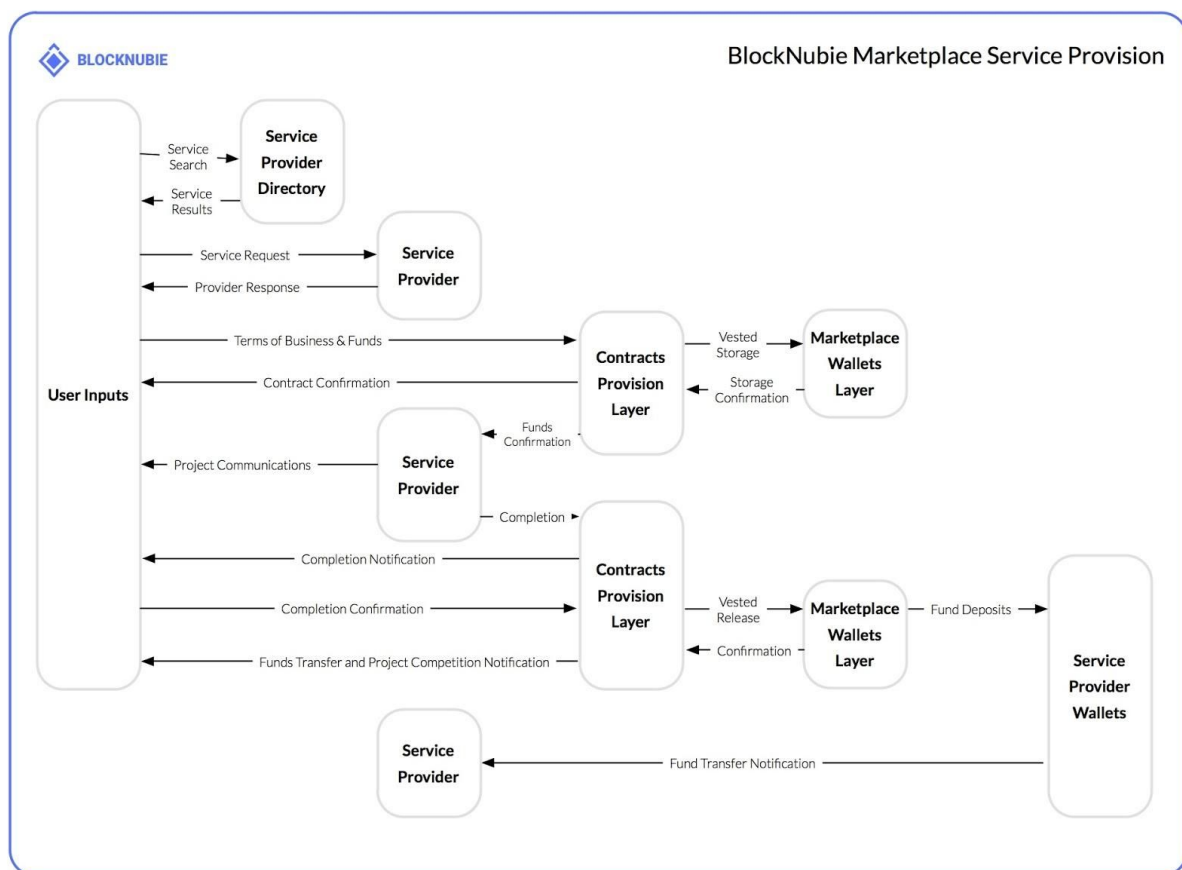
The Blocknubie Experience

Blocknubie aims to offer its users, internal and external, startup and established business alike, an extremely consistent, reliable and straightforward experience. At the core of this experience lies a well documented Open API, through which users may interact. Once this API has been established, a suite of more user and consumer friendly tools will be implemented.



Any interaction with the Blocknubie platform will be required to use the core API. Through the use of this API, developers of this tooling will implement consistent user interfaces and applications, whose reliability and ease of use must be demonstrated and tested before being released into the Blocknubie ecosystem. The ease of use of these interfaces is hugely important as they must cater for everyone from the technological startup with relatively low knowledge to the technologically adept, well established provider.

At a very high level, and to be expanded upon in further documentation, there are several use cases for the platform, all of which should follow a predictable usage pattern, and all of which should be self documenting via the underlying smart contract system. It is worth noting again, that as the self documentation process of the Blocknubie platform will preserve any and all documentation via the distributed blockchain at its core, leveraging the implicit fraud prevention therein, Blocknubie can be viewed as and relied upon as a single source of truth for contracting and any queries and or/issues that may arise.



To initiate contracting, a user/startup/business will search for and identify suitable provider(s) via the Blocknubie marketplace. Once suitable provider(s) have been identified, the customer will then request service from the provider. If the provider

accepts to provide service, then the process will proceed to the documentation and contract provisioning stage, which will provide the customer with the providers terms of business and the rate for the contract.

Once the customer accepts the terms of business, their acceptance, along with the accepted terms of business will be recorded in the blockchain, and the required funds (NUB) will be transferred from the customers Blocknubie wallet into a vesting wallet managed by Blocknubie, which will vest upon contract completion. Once the funds have been confirmed as received by the vesting wallet, the contract will be confirmed to the customer and the availability of vested funds will be confirmed to the provider.

Throughout the duration on the contract, both the customer and provider will have two way communication via the Blocknubie platform. Each of these communications and their responses will be recorded using the blockchain. Once the contract has completed and its services have been rendered, both the customer and the provider will mark the contract as completed. Once both parties have confirmed the contract has been completed, the Blocknubie platform will release the vested tokens to the service providers account, and will notify both parties of their release. Again, the contract completion confirmation and fund transfers will be recorded in the blockchain at the core of Blocknubie.

Throughout the whole process, the Blocknubie platform will record each step using its underlying blockchain: the customers initial request for services, the service providers offering, the acceptance of business terms and contract, both transfers to and from a vesting wallet, and the confirmation of contract completion and final

payment. This will provide both parties with complete transparency throughout the process, as well as providing a single source of truth to both in case of any dispute or issues arising, and to any party to the resolution of such.

Conclusion

In conclusion, this document has presented a technical summary of the planned Blocknubie platform and has outlined the planned architecture and structure for the Blocknubie ecosystem as a whole, and has defined the processes that will be used to enable both internal and external developers to interact with the Blocknubie platform. At the core of the planned platform will exist an Open API which will allow developers to interact with the platform and to develop applications and interfaces to provide service(s) via the platform.

It is worth noting that this document is a technical summary and will be expanded upon further in future documentation, which will be released in a phased approach as the Blocknubie platform evolves.