



Nucleus.Vision



CONNECTING THE  
**UNCONNECTED**



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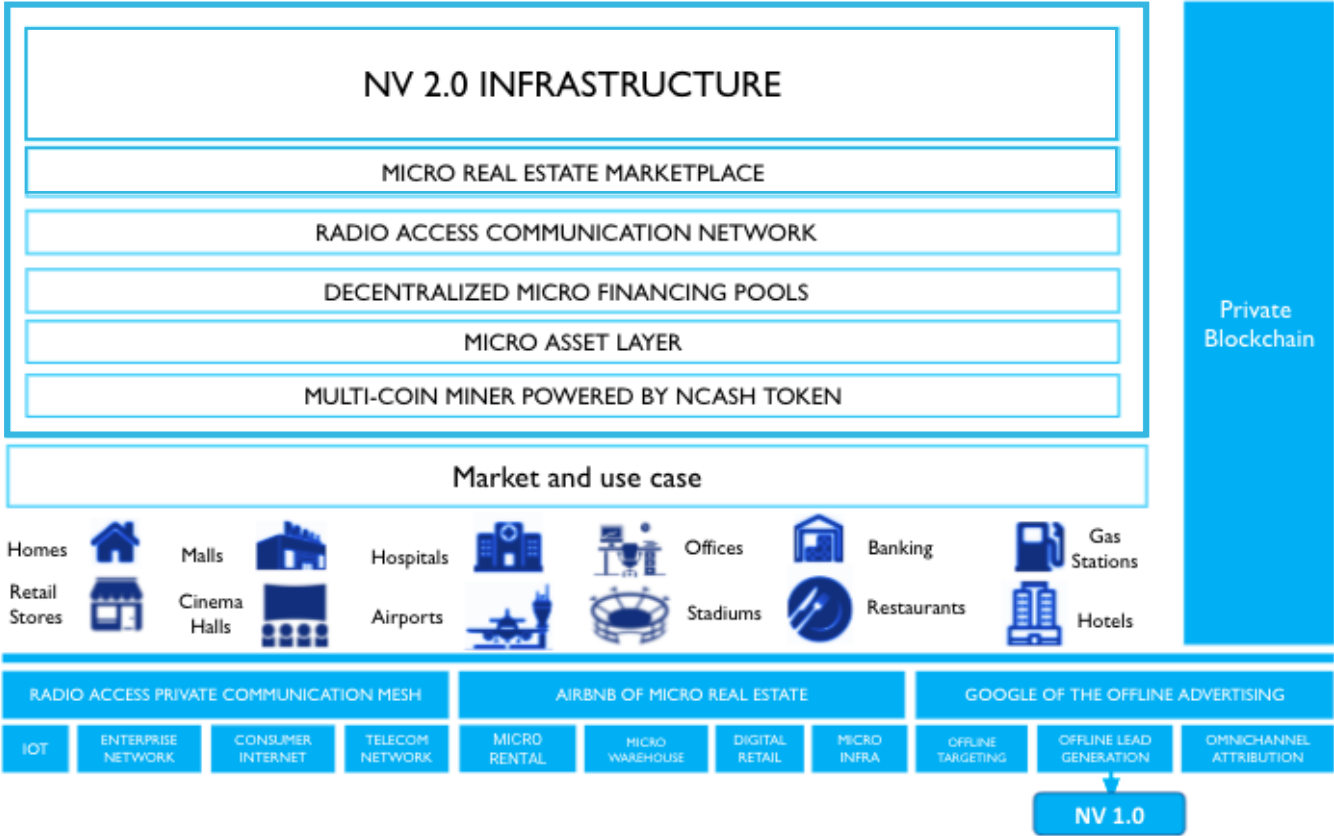




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# **ABSTRACT**

# ABSTRACT



Over the span of decades, the world has witnessed considerable improvements in communication and correspondence systems. This started with the original 1G, and the fourth era is ongoing. The past few years have seen a significant increment in worldwide communication traffic, which is alarming. Consequently, this has triggered the emergence of 5G that seeks to address the flaws of the past "Generations" of correspondence systems and usher in an ever-expanding, limitless system limit. The 5G system provides an assortment of full systems administration and supports assistance capacities among nations and between people from different countries of the world. As might be expected, this provides answers related to the innovative smart dispatch of a huge amount of data, particularly those customized for different sectors and variants of vertical markets with a wide spectrum of administration pre-requisites. In particular, advances in 5G are considered to be inaugural and will begin new submissions in several areas through extraordinary impacts on every sphere of our lives, including but not limited to the Internet of Things (IoT), smart frameworks, smart homes and cities, vehicular systems, and smart medical services.

5G technology came at the appropriate time to meet the complex and diverse requirements caused by the explosive growth of massive device connections, huge data traffic, and the desire to try emerging new services with ultra-low latency. From smart watches to smart healthcare, "smart" is now an innovation. In order to cope with the rapid development and increasing demands of new technologies, the industrial field (in particular) needs a new frontier in intelligent manufacturing and factories. As a result, smart factories have started springing up, smart manufacturing is realized, and the world is experiencing the production of smart products. For example, the smart production procedure can intelligently and independently estimate product attributes, production time, safety and sustainability, including logistics management to optimize product customizer for each buyer. The technology enriches the user experience and provides a new level of comfort, connectivity, and networking.





Similarly, IoT has extended internet connectivity in several applications and use cases deployed throughout the world. It connects billions of objects and users for high-speed transfer of data, particularly in a 5G-powered environment to gather and process information. Most of the current constraints related to the protocols being used, data return and revisit time, and access control mechanism are based on a centralized system. This centralization may have some points of failure in computational overhead. Hence, there is a need for secure and decentralized access control for correspondence systems in the different industrial sectors. For instance, data may be collected and processed by sensors in different regions to make intelligent decisions. When this happens, privacy and security are the major issues since some solutions rely on centralized control infrastructure.

Nucleus Vision is building a full-stack infrastructure to create a decentralized private data network that will service this demand from enterprises, brands, OTT content providers, IoT device manufacturers, Telecoms, Cloud Management Platforms, and others to service utilities from the basic internet service for a consumer in a mall to high-speed content consumption, smart cities autonomous cars, industrial IOT, digital health and moving robots with the least latency as possible. Nucleus vision in tandem with Jiffy micro real estate marketplace is creating a solution that can be deployed anywhere in the world. The solution is creating a decentralized micro-financing pool to finance micro assets, including sensors to build its network. The marketplace acts like Airbnb for micro real estate to deploy the network, and the network will charge fees for dataflow to network users, both enterprises and consumers. This fee will be shared with the network miners, a.k.a the financiers and network validator aka security nodes, who are financing and securing the network infrastructure, respectively. The multitude of business use cases from the infrastructure gives miners an average return of over 100% for the first ten years, an extraordinary incentive for the growth of the network. NCash will become the medium of value exchange for all value created and captured in the network.





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# **BACKGROUND**

# BACKGROUND

As a technology concept, the Internet of Things (IoT) is redefining and transforming almost all industries and vertical markets in numerous ways. Over the past few years, we have witnessed a point of reflection where fragmented attempts to connect sensors with machines in some targeted industries are now being integrated into a robust connectivity mission saturating the global business environment. Ideally, this is a migration from the relatively narrow framework of developing new information and communication technology systems for specialized markets. It is especially true for systems that rely, in part or wholly, on the broader and wider view of increased connectivity demands across several industries, markets, sectors, and the entire global physical environment. This also involves the continuous, specific focus on integrating the new flow and exchange of data between machines and sensors with the existing and innovative sources of data, including but not limited to open government databases, intelligent products and manufacturing, and enterprise resource planning.

An important point to note is that the assembly of the major vendors and players in the development of IoT offerings are converging on a centralized platform. In the coming years, real-time data will be commoditized. An increasingly massive volume of time-stamped but connected data will be produced by sensor-powered devices, especially in the service sector, real estate, manufacturing, supply chain, and city aggregation. According to Statista, there will be more than 75 billion of devices connected by Internet of Things (IoT) by 2025 (represent approximately three times the numbers reported in 2020 (30.75 billion)). An overwhelming majority of the newly generated data will be used for several purposes in different industries. For instance, it can be used in fleet and inventory management to track assets with greater accuracy; can also be used in the production of specialized products for targeted customers with enough granularity; the development of new services and sustainable business models can be used for the optimization of manufacturing operations. This means more investments in connectivity and may bring global spending on IoT to hit 1.1 trillion U.S. dollar (Statista).

Similarly, the computing stack is also receiving much attention. In the current decentralized framework, some of the decentralized apps are characterized by backend code that runs on peer-to-peer networks. Such a variability - such as Golem and Ethereum- has been a strong selling point for the decentralization of connected data. For efficient functioning, decentralized apps need external data. Today, the storage, retrieval, and distribution of connected data to real-world uses are overly centralized. This makes Dapps more vulnerable to known and imaginary problems like cyber-attacks, limited robustness, and concentration of power. This is not to undermine the attempted efforts of some decentralized data storage apps like Storj, IFPS, and Swarm. There has been remarkable success from the emerging efforts to decentralization but the current alternatives do not make provision for cases where real-time and connected data are required in high volumes. The distribution channel is not optimized for either low latency or high-throughput. Apart from the fact that it is not scalable, it is also expensive for data storage. Something needs to be done- and more quickly. This means the current decentralized apps need to be complemented by a decentralized real-time data sharing framework. This is the "WHY" of Nucleus Vision as we propose building a full-stack infrastructure to usher in a new decentralized private data network to cater for the complexity in demands from different OTT content providers to IOT device manufacturers, and enterprises. Our consumers, users, and members are not restricted to these as we plan to scale to reach other users. We aim to create a network powered by secure and consistent delivery of data and low latency. We invite you to join us in redefining the world of connectivity.

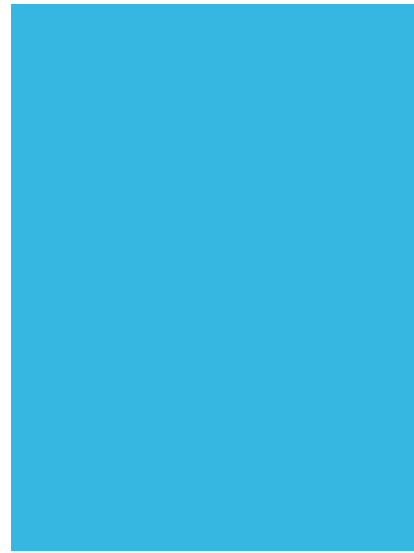
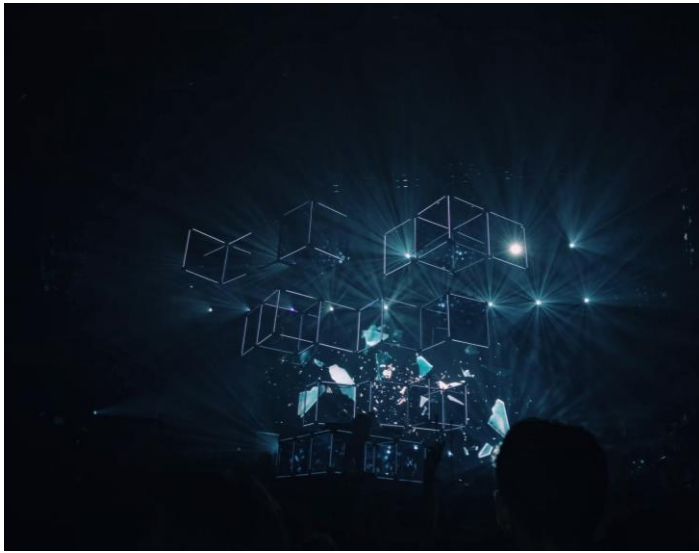




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# **INTRODUCTION**





# INTRODUCTION

The world of connectivity, powered by 5G and IOT, continues to advance into several areas of business. Some years ago, the emphasis was on mobile network to provide services to consumers. However, there has been a growing recognition that we can now use mobile network for specialized enterprise services in areas related to edge computing, Big Data, IoT monitoring, and artificial intelligence. Indeed, McKinsey estimated that enterprise applications will use about 54% of the connections powered by IoT by 2025. Over the years, deployment of mobile networks has been established as a superior platform for real-time data connectivity in applications ranging from automated warehousing, autonomous vehicle deployments in 5G-powered environment, materials processing, factory floor automation and mining. An assortment of options of increasing interest is directed towards private network. Nokia, in 2020, announced that more than 130 of their industrial enterprise customers are deployed on their private network. Thus, this represents about 25%-40% of corporate and small and medium-scaled enterprises could be served through their private network between 2023 and 2025. Building upon the success of 4G, the introduction of 5G networks supports the provision of private networks even more effectively. Mobile operators and OTT content providers are also responding to the needs of their users by offering their own hybrid 5G solutions that provide enhanced flexibility by utilizing private networks to suite the range of uses and needs of industrial enterprises. This inescapable possibility is the stepping stone to achieve greater accessibility, which is the main focus since initiation of the 5G technology. Therefore, it is safe to say that the 5G innovation is an important empowering factor required IoT innovation.

Within this framework, 5G supplements Internet of Things to give more precise information and at quick rates, reduced vitality prerequisites, low latency, and higher versatility. The growing innovations of IoT and 5G promise to deliver substantial advantages to the end users, particularly enterprise clients and corporate bodies. For example, they can proficiently travel by avoiding gridlocks and using alternative routes when informed by IoT-empowered devices in their vehicle. In addition, end users can stay healthy using telehealth that utilizes wearable gadgets which monitor their wellbeing. Organizations and corporate establishments can use client's information to provide better products and/or services. Likewise, they can use remote locking and area trackers on their hardware for resources verification. Government and civil spaces can achieve reduced medical service costs with the provision of wellbeing-support using remote wellbeing observation devices, particularly for the elderly ones. Shared homes, smart real estates, and street maintenance can simplify resident's life by reducing the general maintenance cost of the structures.

Overwhelming amounts of data are produced and stored every second. This has led to increased requirement of adequate data storage and retrieval system, including the proper processing methods to handle the varieties of data produced. This method is associated with a surge in the relay of information from Device-to-Device (D2D) to machine-to-machine (M2M) interactions. To handle the proliferation of this information, a comprehensive process stack is required. This stack is expected to address each problem identified in the transmission of each information and processing at all levels. A structure could be developed using standardized levels and protocols within such framework to satisfy the computer's demands, their users, and business goals. There has been a requirement for quality packages that are in tandem with a decreased merchandise expense. Notwithstanding, IoT has transformed many industries that use 5G infrastructure such as the real-time information sharing, interaction and exchange between devices, and empowering humans who are able to use the above to solve real-world problems. Nowadays, the vast majority of these IoT-based methods and devices are designed to use a centralized client-server. Things need to change.

We can use blockchain-backed decentralized architectures for peer-to-peer (P2P) transmission between sensors to solve some of the conventional problems related to private data network. Nevertheless, it is important for such a network to consider privacy and security measures to avoid opening up the system for hackers against cyber-attacks. A long-term goal is that a 5G-powered deployment for the protection of IoT products could use blockchain. When it comes to processing the new information over the network, the IoT will certainly be secured. Consequently, it is possible to use identical networks in real-time with 5G-enabled products. Therefore, a blockchain-enabled deployment is the right way- and the next solution. Among these benefits include keeping and encrypting the information in an immutable fashion - this totally abolishes a centralized server. In addition to the possibility of transacting with members in a secure situation, 5G-enabled IoT products leveraging blockchain offer greater protection to its participants.

There are not too many decentralized applications (DApps) currently using a 5G-powered IoT and blockchain. Data sharing, with IoT infrastructure, between users could be achieved with wireless smart devices combined with scalable connectivity. It could be difficult to attain a ubiquitous integration of network in the contemporary era ---5G, however, eliminates this difficulty. As opposed to 4G, this minimizes latency by more than a hundred occasion. Moreover, coupling blockchain with IoT enables us to maintain an immutable transaction ledger for the shared interactions between the devices. In this arrangement, the middlemen are automatically eliminated, granting the subscribers the freedom to communicate without a third party.

Nucleus Vision is a wide-area wireless networking system and a protocol token. The Nucleus Vision Wireless protocol, WHIP, provides a bi-directional data transfer system between wireless Devices and the Internet via a network of independent providers that does not rely on a single coordinator, where:



Devices pay to send & receive data to the Internet



Miners earn tokens for providing network coverage



Miners earn fees from transactions



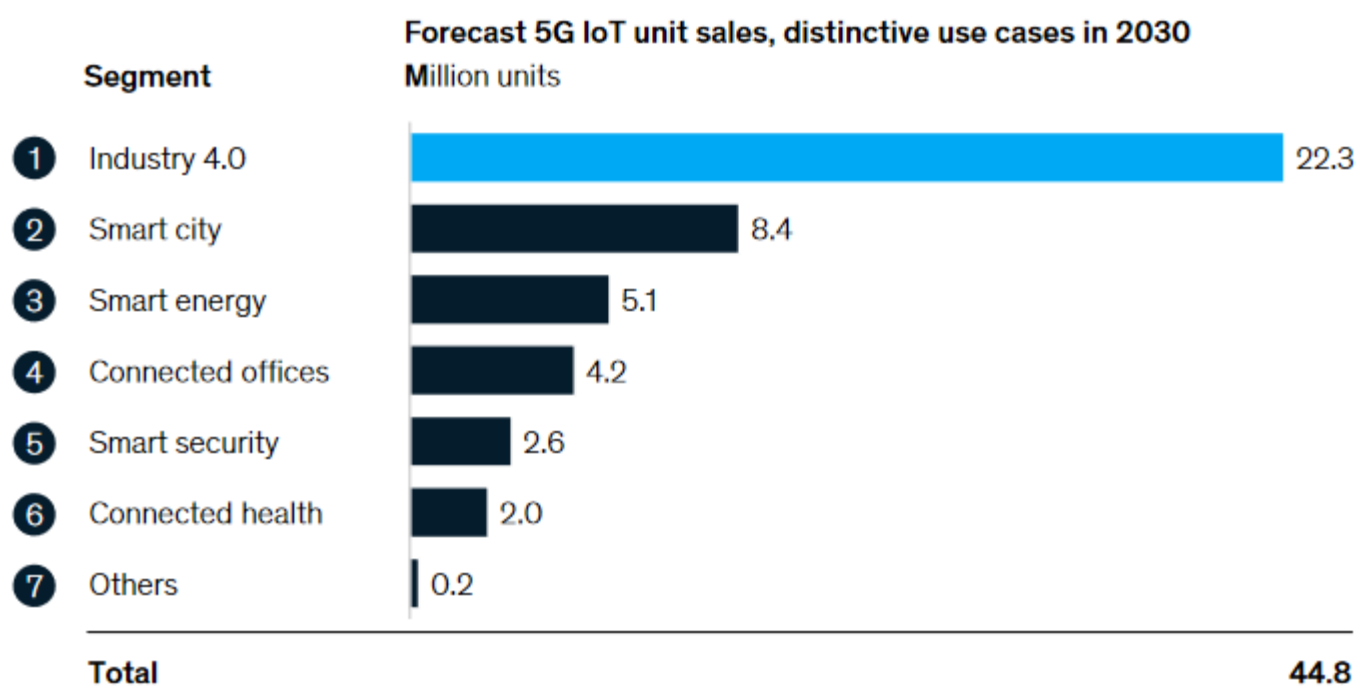


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# **MARKET OPPORTUNITIES**

# MARKET OPPORTUNITIES

**For distinctive B2B use cases, almost half of all 5G IoT sales will be linked to Industry 4.0 applications**



The global Private Network was projected to worth USD 924.7 million in 2020 (McKinsey) and is expected to continue growing at a CAGR of 41% during the forecast period. The current generation of network is expected to satisfy the demands of secure wireless connection for public safety, industrial use, and essential connectivity. Unsurprisingly, the advent of COVID19 led to an increased in the demand for private 5G connection as a result of its inherent benefits. Private 5G enables better video quality, high bandwidth, remote sensing, and low latency which can be effectively used in remote working for different markets. Therefore, many companies have taken private 5G as a means of achieving the norms created by the post-COVID19 new normal and this has significantly heightened the adoption of 5G network throughout the world.



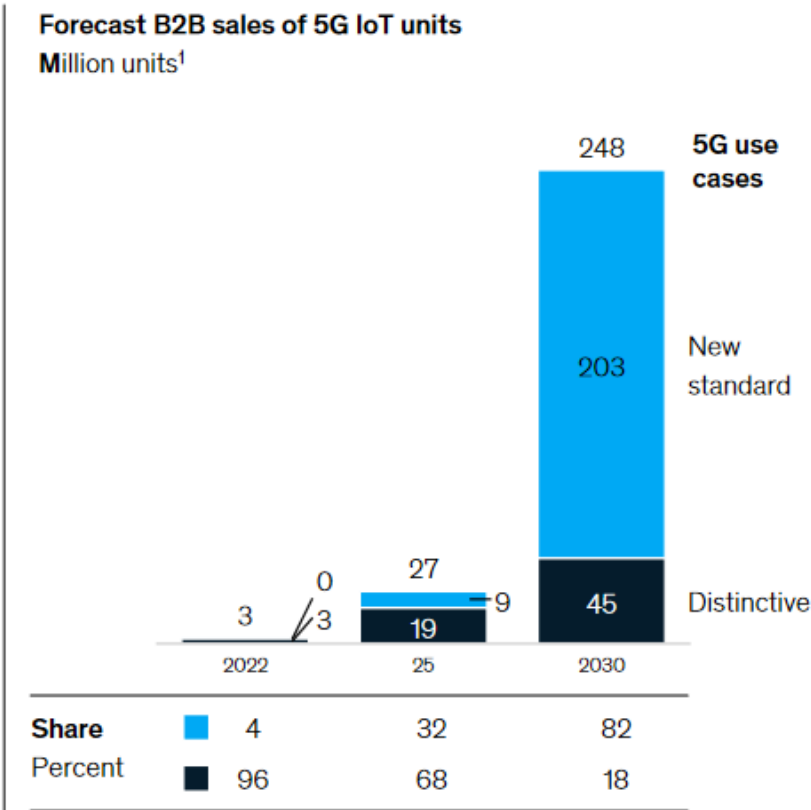
Companies will adopt 5G to enable new use cases or comply with future connectivity standards

Distinctive 5G use cases

Use case requires 5G technology to achieve distinctive performance enhancements

New standard 5G use cases

Use case does not require 5G technology, but companies are motivated to switch to ensure future readiness and increase standardization



<sup>1</sup> Numbers do not sum because of rounding.

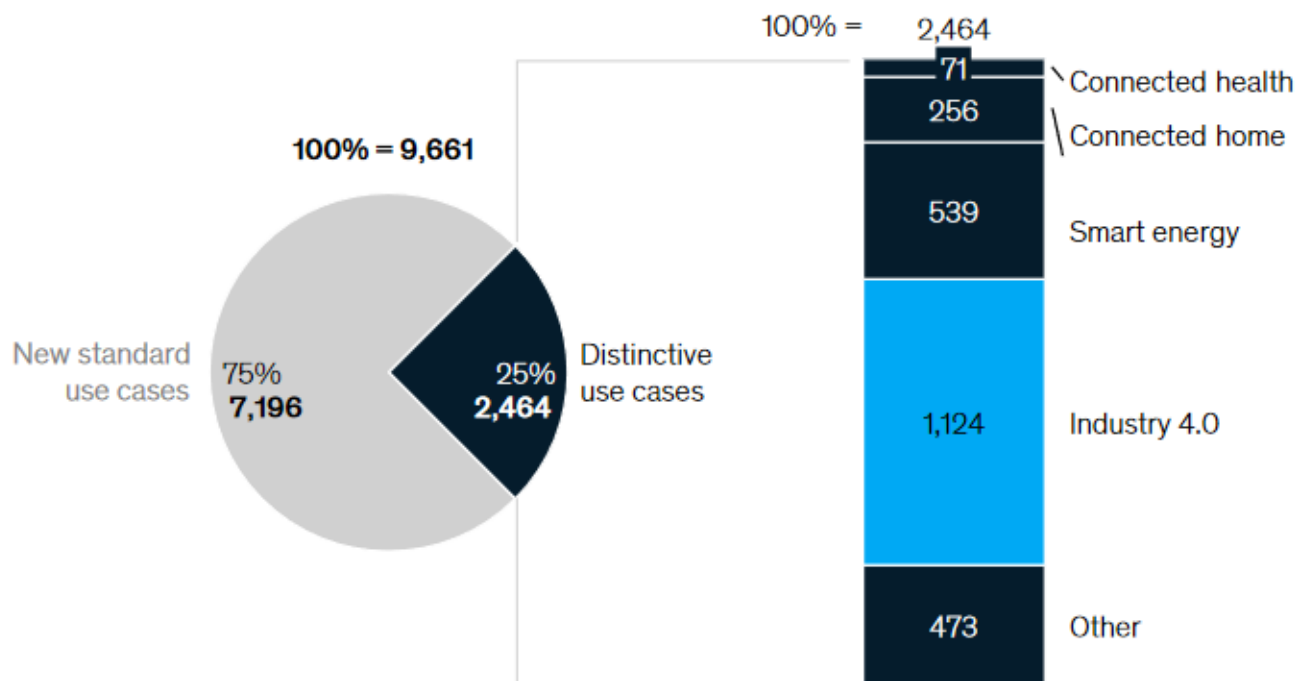
Source: McKinsey analysis

Corporate establishments across IoT-related realms like oil and gas firms, rail and port operators, industrial behemoths, and manufacturing companies are investing hugely in the private 5G networks. The first private 5G networks have started deploying their services to enable devices, from large sensor networking to manufacturing robots to automated guided vehicles. With industry 4.0, many household industrial operators like Mercedes-Benz and Siemens AG, are using sensor-based industrial robots and sensor-based technology to deliver ultra-high operational efficiency and superior productivity. Today, the private 5G sector is essentially dominated by utility applications like public safety, port and rail infrastructure. The deployment of private network in these industries is fueled by the expanded coverage potentials of versatility and predictive efficiency of the 5G. As it is already known, the mining and manufacturing industries are also implementing the private 5G network and are expected to drive the world of connectivity to unprecedented growth over the next few years.

The B2B unit sales of 5G IoT will increase with increased adoption and more use cases gain more tractions. McKinsey forecasted that about 27 million units will be sold by 2025. This is different from the 68% for new use cases and 32% for distinctive ones. The annual units sold in 2030 will be more than 250 million but the source of demand is expected to change.

### Forecast B2B market, 5G IoT modules, 2030

USD millions



Source: McKinsey analysis







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# **INDUSTRY PROBLEMS**

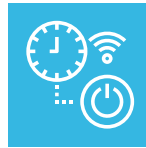
# INDUSTRY PROBLEMS

There is no doubt that blockchain innovation and 5G evolution with Internet of Things (IoT) will have some pronounced impacts on digitized business economy. Despite its growing influence, the current deployment has some limitations related protection, integrity, security, and adaptability. Although blockchain was initially developed to disrupt the global financial environment, its higher-security and decentralized nature have proven to be applicable in different areas - 5G and IoT are not exceptions. However, different difficulties have emerged from this coalition and these are briefly discussed below:



## ADAPTABILITY

Some essential necessities of the blockchain innovation are the reliable stocking of blocks and exchanges. This means every hub must have duplicate of the record developed with the exchanges. With adaptability, the effect on capability for the IoT sector will affect the use case of the whole framework. In particular, the increasing exchanges with scaling need noteworthy capacity.



## HANDLING TIME AND POWER

The blockchain deployment needs some serious computational-asset activities. These activities often use the confirmation of block age and exchanges, which make use of some cryptographic tasks. Given the limited asset nature of the IoT, there are specific restrictions in the calculation that can breach the security. Therefore, we must apply assets that are less-escalated when we apply the blockchain in the IoT applications. One of the options here is the Elliptic curve cryptography which brings less computational requirement to the asset-defined IoT requirement. When scaling the framework, the executed restrictions will result from the cryptographic tasks.



## SECURITY

For any framework, users are concerned with access control and accessibility. Hence, blockchain implements its security and accessibility features. It checks each exchange with the blocks and computerized signatures with conforming marks. As a result of the registering framework of the IoT, the confirmation of the exchange becomes an asset-escalated one.



## PROTECTION

Many of the available IoT gadgets are always in sending modes. These increase their restrictions and make them vulnerable in the face of asset-limited instrument. The information protection function, when blockchain is thought of, does not surface automatically because it only materializes upon the confirmation of the exchanges. Security component is a significant challenge with many IoT products. In many cases, the cryptographic nature of the blockchain is the perfect remedy to the security of authorized information of the IoT settings.

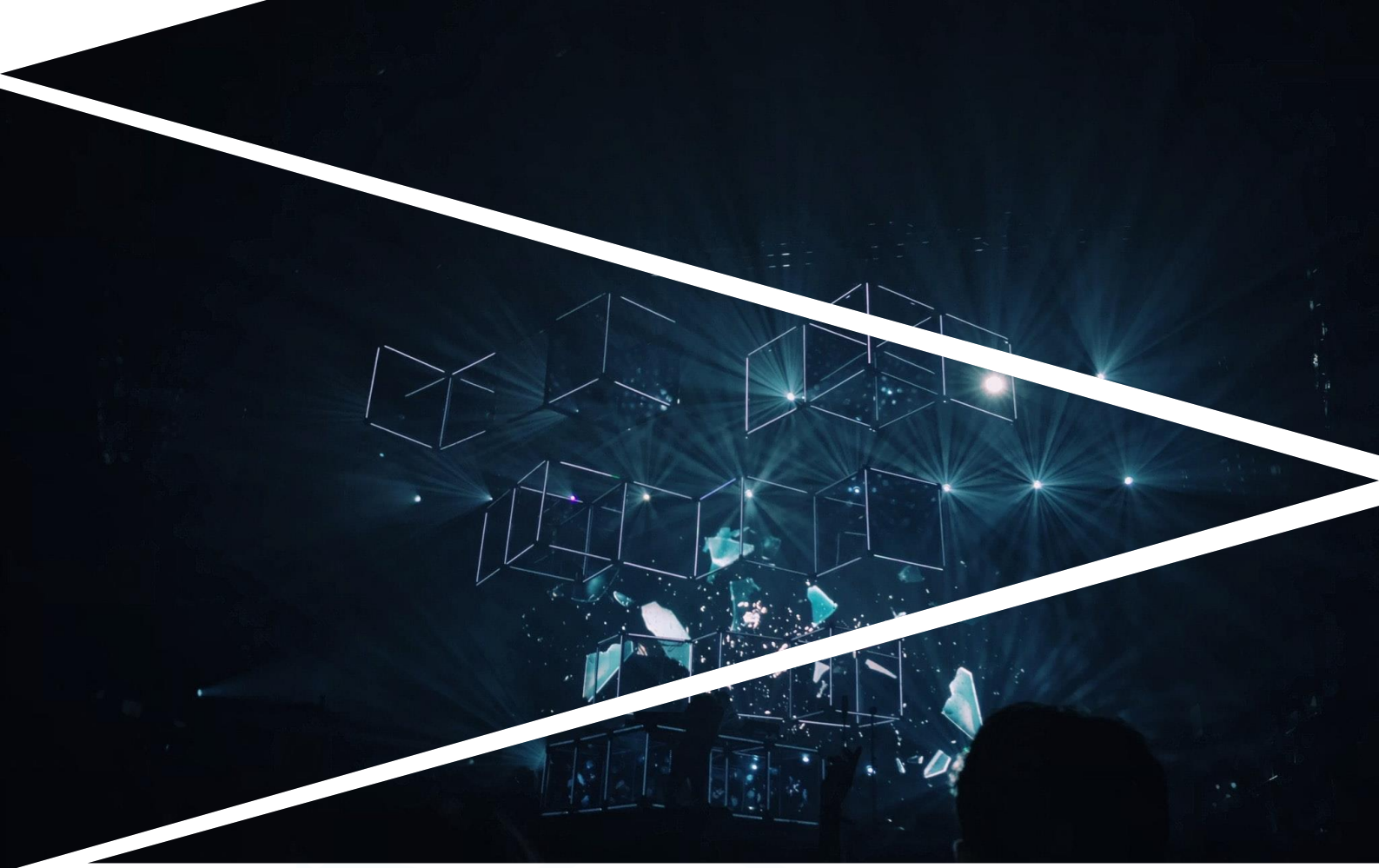




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# **WHY BLOCKCHAIN?**





# WHY BLOCKCHAIN?

We have seen the roles of 5G and IoT in enhancing business and people's lives. One of the factors to consider in accessing and sharing real-time data is the security and governance of the centralized server. The methods of centralized information storage space that adopts cloud computing may improve the efficiency of IoT. However, it is apparent that this serves as a tan package where individuals and users are ignorant of how the system store their information. In addition, this type of centralized framework is not efficient in improving data integrity and ensuring the transparency of the information. To improve security and privacy, it is desirable to use blockchain-based storage and sharing means, especially for 5G-enabled IoT use cases in manufacturing situations. Blockchain can transform the IoT by having an adaptable and trusted network, where any data can be shared in a reliable and traceable manner. Other reasons include:

01

**PROTECTED ORGANIZATION OF CODES**

A maker in an inflexible log can easily trace and update transaction and communication history. It also allows them to correctly upgrade IoT devices.

03

**RELIABILITY**

This integration enables users to confirm the authenticity of any transaction confidently and respond to them accordingly

02

**AUTONOMY**

We can connect our products without involving a third party. This paves the way for developing a device with terrific IoT-powered manufacturing uses

04

**SCALABILITY**

Migrating from a centralized to decentralized cloud eliminates any reason for the disappointment that comes with a fault tolerance. This also reduces or even eradicates the control of online data and resources which several companies have monopolized.





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# **OUR VALUE PROPOSITIONS**

# OUR VALUE PROPOSITIONS

Nucleus Vision provides uncapped data for uncapped applications and unstoppable use cases. We premise our solutions on a decentralized network of connected data delivery that is both tamper-proofed and scalable with low-latency. It is uncapped- meaning new data can be published unto the data streams by anything or anyone. This allows other users to subscribe to these data streams in order to power their microservices, fuel intelligent data pipelines, and re-engineer a new impetus of smart contracts and scalable DApps. What makes this solution unique is our reward and loyalty system, where we incentivize active participations on the network with a built-in native data monetization mechanism. Against the monopoly of commercialization of private data by mainstream social media platforms, huge amounts of data generated from connected devices, customized data produced from security exchanges and real-time data from social media feeds and connected devices can be offered to the members on the platform, including ordinary citizens, corporate establishments or developers. To power these exchanges, Ncash Tokens will be used as the native cryptocurrency on the platform.

The gradual roll-out of Nucleus Vision sensors will ensure that ultra-high mobile connectivity are available, affordable, and accessible for enterprises, homes and offices, and companies. The growing body of service providers will benefit from new business opportunities that result from these services.

Simply by connecting, interacting, and networking with the Nucleus Vision network, our adopters and members will benefit by trading NCash and will be proud to be among the early backers in the creation of a truly decentralized, secure and ubiquitous private data network powered by the Low Power Wide Access Network.

Private networks that are designed and created for specific enterprises offer opportunities to optimize performance and service delivery in ways that are impractical or impossible through generic cellular, wireline or Wi-Fi service provision. Headline business value to firms includes:

The provision of bespoke services – i.e., services unique to the customer and tailored to business and operational requirements.

Security and privacy – by keeping private user traffic local to the customer's private networks

- Improved efficiencies or reduced cost of doing business
- Reduced latency
- Reduced backhaul cost

NV 2.0 will expand sensor capabilities to include LORAFI, and WIFI with existing 3g,4g, and 5g band to include IOT and internet services.



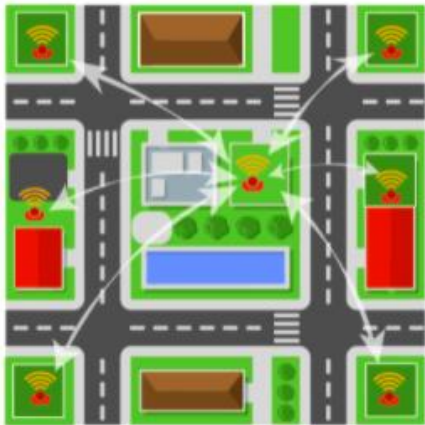


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# **SOLUTION**

# SOLUTION

- Radio Sensor
- Vending Machine
- MicroWare House Box
- Cloud Kitchen
- Digital Screen
- Home

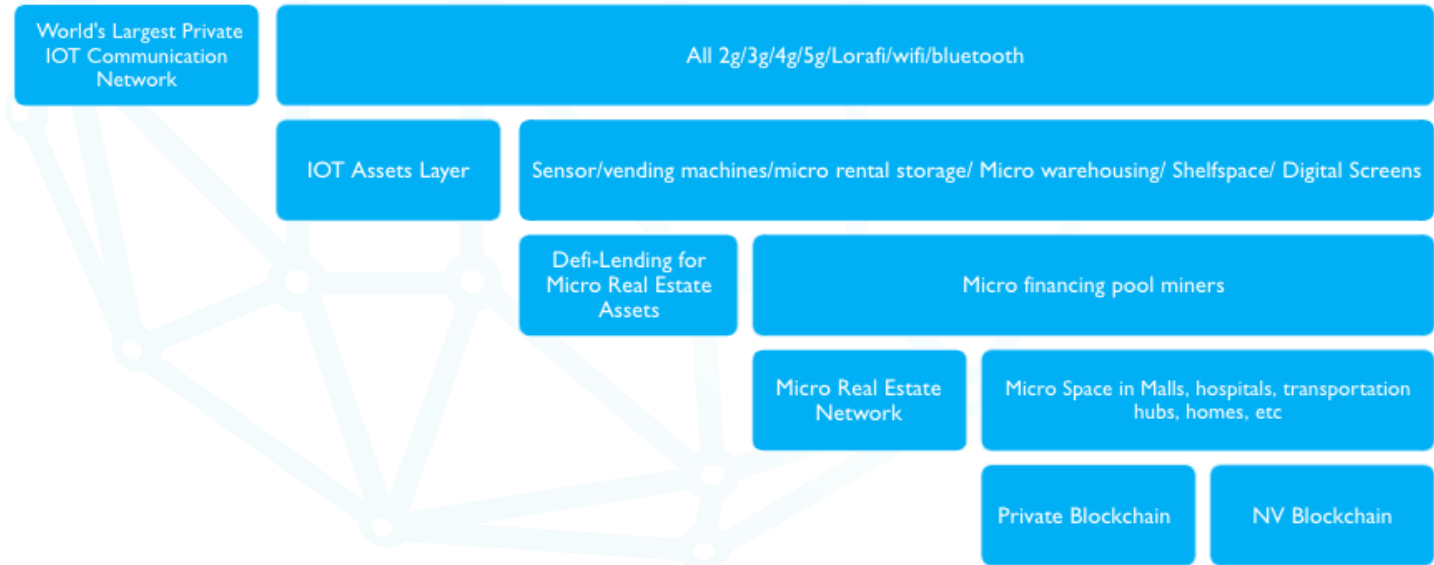


- Limitations:
- 1. Huge Network Effect for adoption
  - 2. Asset are paid by the company
  - 3. The business model is limited to only Ad tech
  - 4. Telecom Partners dependency.
  - 5. Only monetizing data.

- Pros:
- 1. Multiple Revenue Streams
  - 2. Community will own the assets
  - 3. Low telecom dependency
  - 4. Show progress to shareholders.
  - 5. Data, network, and Retail sale.

Nucleus.Vision 2.0 overall infrastructure will be an expansion from NV1.0 and leverage the skills, expertise, technology, and partnerships in NV1.0. Nucleus vision has all required partnerships in place to execute the NV2.0 Vision successfully.

## Nucleus Vision 2.0 Product Stack





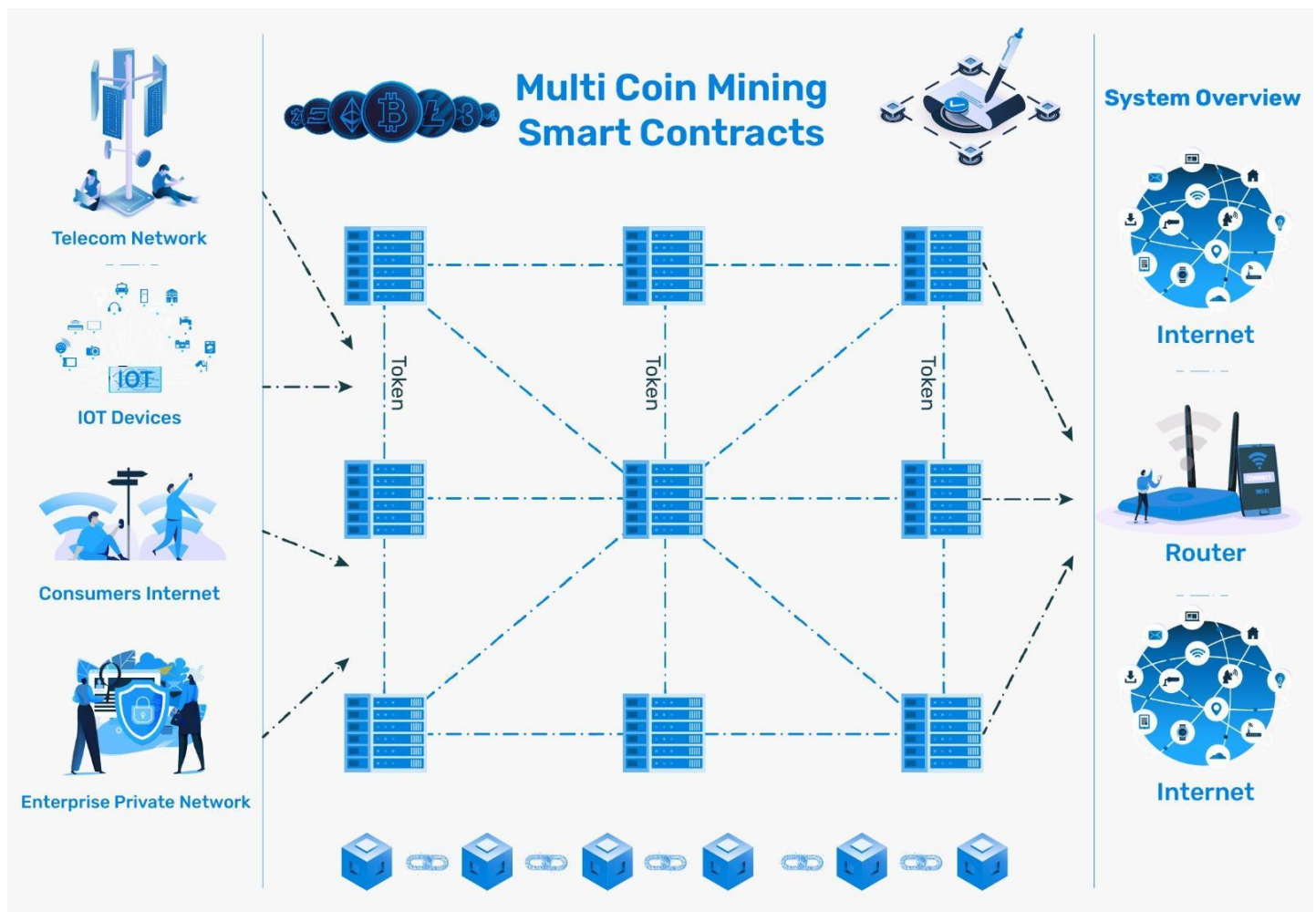
The NV 2.0 technology full stack will make 3 main capabilities possible:

1. To create a telecom grade private radio network for data and communication
2. To create a Micro Real Estate marketplace which will act like an Airbnb for Micro spaces
3. To build data engine that will provide differentiated insights about consumers like google in online world.

This capability provides several sources of value creation that will be captured by NCash at the core of the system.

In the following sections, we will describe some meaningful layers in the product stack:

## INTRODUCING NV 2.0 RADIO NETWORK – SPIDER



The Spider network is also a physical wireless network instantiation. The participants in the Spider network can be thought of as follows:

## THE PARTICIPANTS

There are three types of participants in the Spider network: Device, Gateway (miner) or a Router (Seeker).

Devices send and receive encrypted data from the Internet using hardware. Data sent from devices is fingerprinted, and that fingerprint stored in the blockchain.

Miners provide wireless network coverage to the Spider network via purpose-built hardware, called IONs, which provide a long-range bridge between Ions and the Internet through router called Seeker.

Users join the Spider network as Miners by purchasing ION that conforms to SPIDER Network and staking a token deposit proportional to the density of other Miners operating in their area.

Seeker are routers, internet applications that purchase encrypted Ion data from Miners. In locations with a sufficient number of Miners, Routers can pay several Miners to obtain enough copies of a packet to geolocate a Ion using smart contracts. Seekers are the termination point for Device data encryption. Ions record to the blockchain to which Seeker a given Miner should send their data, such that any ION on the Spider network can send any Ion data to the appropriate Seeker.

The Spider network uses a both open-source wireless protocol and NV proprietary communication stack, to create application based long-range and short-range communication network. Spider compatible hardware can communicate over many square miles in dense urban environments or hundreds of square miles in rural settings.

we believe a decentralized wireless network should use non-proprietary protocols and modulation schemes and that participants in the Spider network should have the freedom to choose between competing hardware vendors. It is this lack of connectivity infrastructure to meet future global demand with 5G on the horizon that drove the creation of a new protocol.







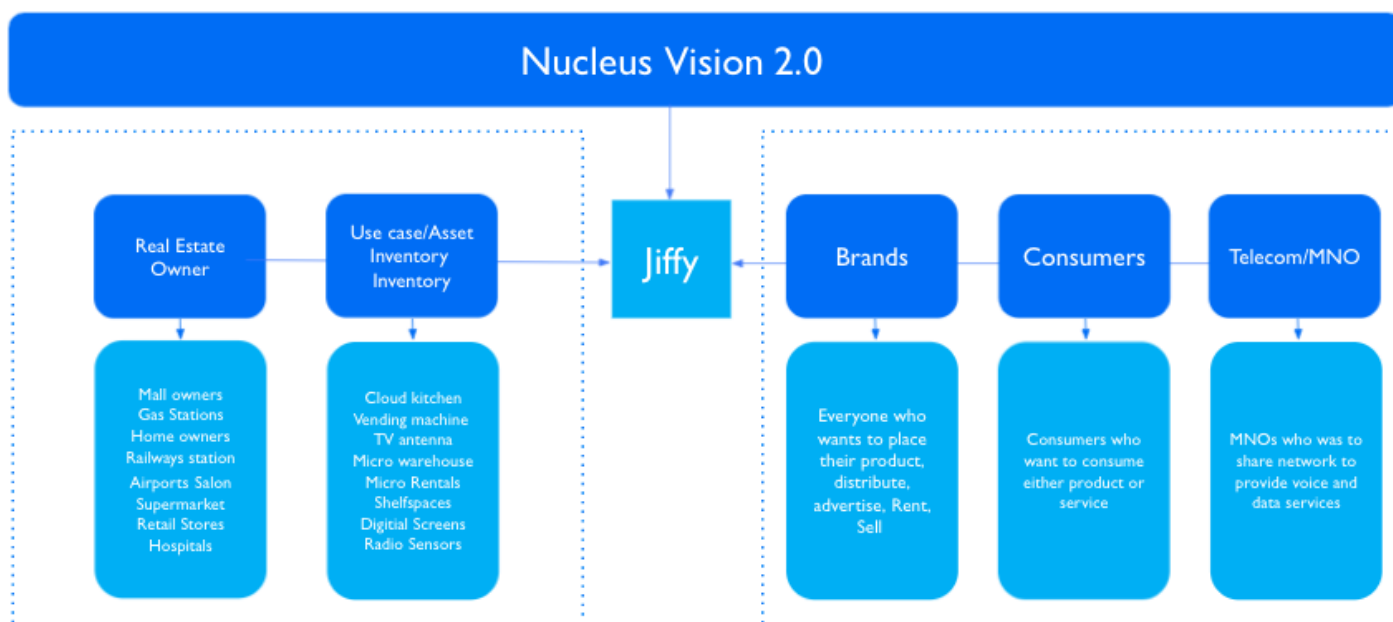
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# **PRODUCTS AND SERVICES**

# PRODUCTS AND SERVICES

## MICRO REAL ESTATE MARKETPLACE

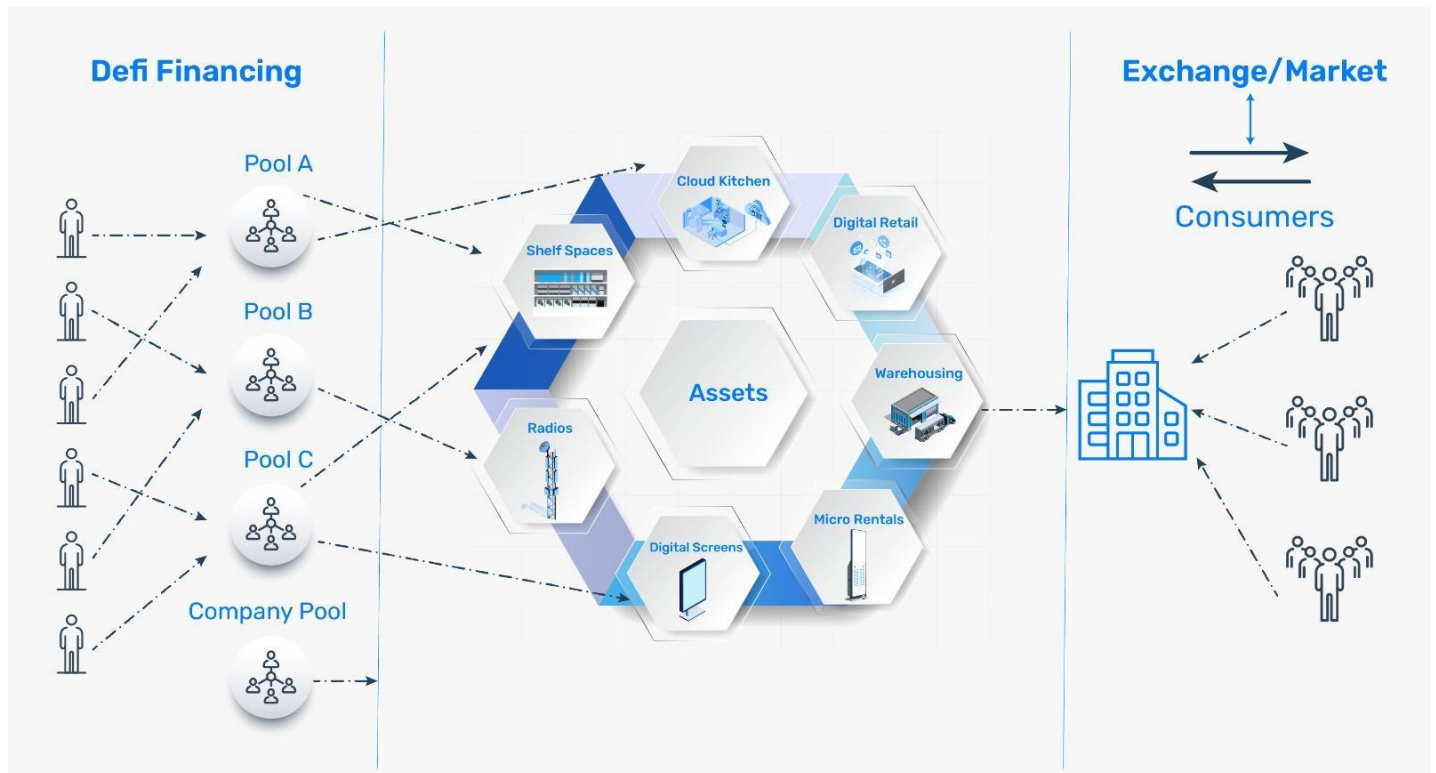
### NV 2.0 Multi-Sided Platform



NV 2.0 will enable a multi-sided technology platform such as Airbnb for under-utilized micro spaces. Any unused space across any kind of platforms – residential or commercial such as malls, hospitals, airports, offices, etc., can be put up for lease. NV 2.0 will create value for real estate owners by sub-leasing these locations to miners in the network. The assets will be financed by defi micro-lending. NV2.0 now will provide access to locations where miners cannot just provide network at their home locations but also locations outside their control. This platform in a sub multi-sided platform which is the value generation engine of the protocol. The other side of the protocol will create the UI for engagement with Brands, Consumers, and Telecoms for value creation through consumption.

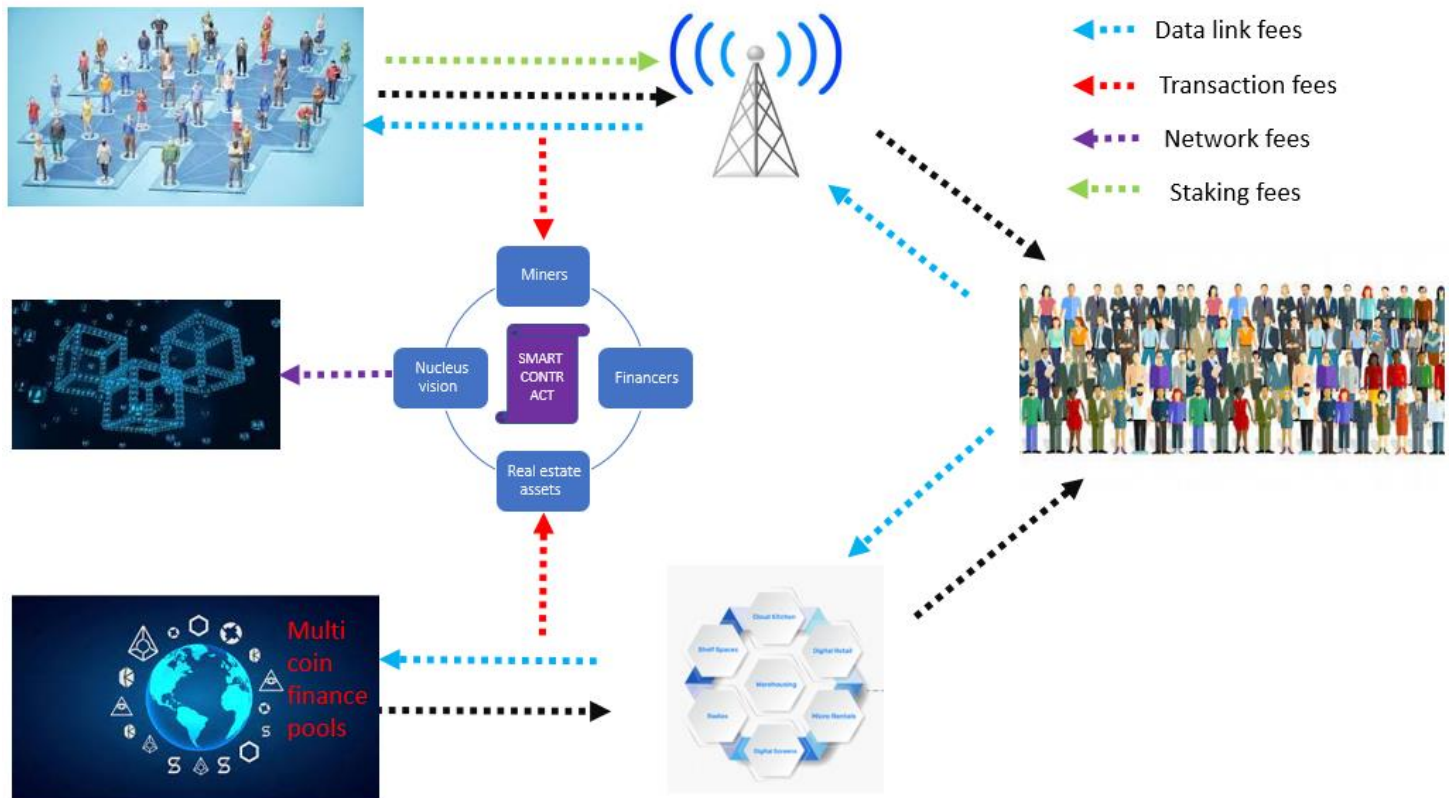


# DECENTRALIZED MICRO FINANCING POOLS.



Nucleus vision envisions an innovative approach to build a community powered infrastructure, giving more power to the community to participate in owning infrastructure of private networks of the future. In NV2.0, the miners get a fee for the radio network creation. In addition to that the community can further participate to create lending pools to finance assets in the network through the Defi-Micro Lending Platform in NV2.0. These assets become the foundation for the radio network but are also a direct source of value creation for the network and NCash. This new system will allow network effects to bring global community to participate with a pool manager account that maintains a smart contract to allocate funds to a particular asset or multiple asset categories in one geography or more to create a portfolio interest for the lenders. This will enable finance wizards in our community to build their own pools, create token holders to participate in the micro asset financing and capture value for themselves as a pool manager. Pool Manager incentives will be aligned to maximize interest payments for its contributors and his participation is rewarded by the terms set by the contributors from the community in the beginning of the contract.

## BUSINESS MODEL



Multi-coin Transport Transaction Fee Mining Model:

Nucleus Vision allow miners to mine multiple coin in the new NV 2.0 process

Similar to some of the current blockchain network, transactions in the NV 2.0 network offer functionality that allows the transfer of address-to-address protocol tokens. Since we are introducing first-of-its-kind private data network, this also provides a set of catalysts that powers the core functionalities that are important to the successful operation of the NV network.

## DEVICES PAY PER PACKET

The goal of the NV 2.0 network is to offer Internet data transport fees (the fees paid by Devices to Miners) that are an order of magnitude less than anything currently available for this type of service. This transport fee would need to be metered per-packet in order to allow for maximum flexibility — this way, a Device could transact with any Miner, even just to send or receive a single packet without having previously established a relationship with that Miner.

## ALL TRANSACTIONS OCCUR ON-CHAIN

The NV 2.0 network is built on the philosophy that all transactions should occur on-chain; that is, blocks should be sized and mined with a frequency such that every transaction which occurs on the network should be stored in the blockchain.



## TYPES OF FEES

**01** Data Link fee

**02** Staking fee

**03** Network fee

**04** Transaction Fee

### 01. DATA LINK FEES

Devices using the NV network to send and receive data to and from the Internet must pay Miners what is known as a data link fee. This fee compensates the Miner for delivering data packets between the Device and the intended router. The fee is negotiated between the Router to which the Device belongs, and the Miner, as Devices are not directly connected to the blockchain. Miners set the price they are willing to accept to transport data to and from the Internet on a per-byte basis. A Devices router pays Miners the transaction fee on transmission or reception of the data. This means that the Miner will receive the transaction fee prior to the transaction being mined in a block and recorded into the blockchain.

### 02. STAKING FEE

Staking fees is an incentive for location preference management and maximize density of network. The miners will be charged a staking fee based on the location. More details will be provided in the technical white paper.

### 03. NETWORK FEES

For the NV network to reach maximum usefulness at a specific density of Hotspots, we want the fees to incentivize the NV network density to be as close to that ideal as possible. Incentivizing the layer blockchain enables the NV network to function efficiently. A small fee is paid to the layer blockchain on which our network will run, so as to make sure the transactions run smoothly.

### 04. TRANSACTION FEES

In the network value creation, we build the value in another format where we do direct transaction using NCash to facilitate value for consumers beyond data link. This is created because NV has a full stack solution for creating assets multitude value creation touch points. All financing, product, services and analytics are charged by transactions. These transactions are a collateral benefit of the network infrastructure and will be captured in NCash.

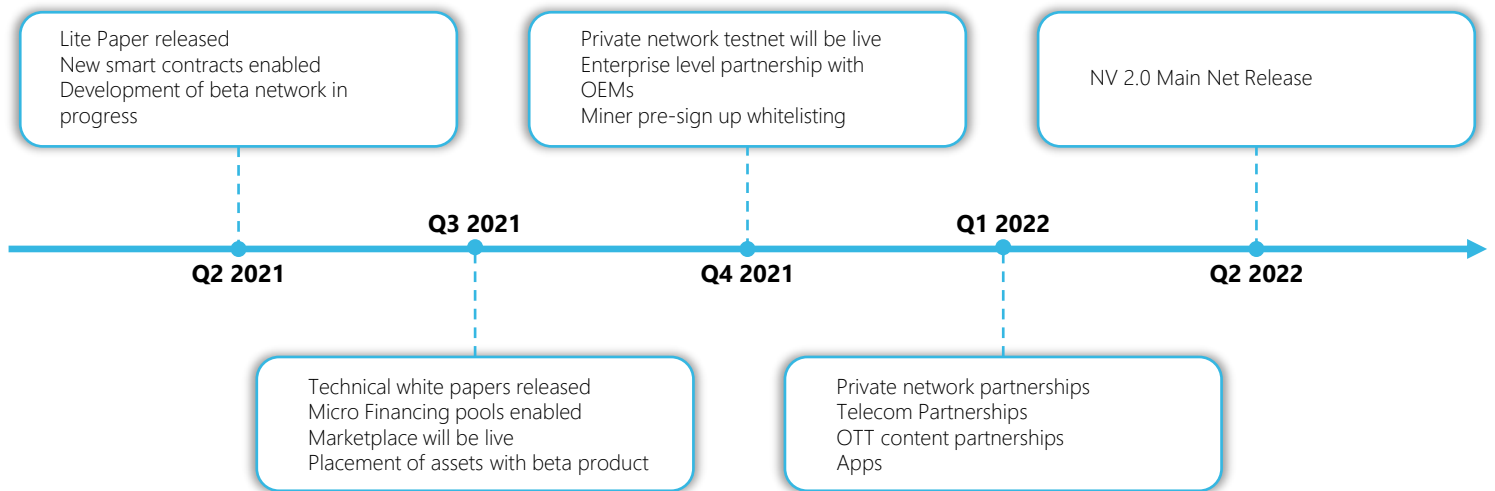


**Nucleus.Vision**

# **ROADMAP**



# ROADMAP





**Nucleus.Vision**

# INVESTORS



# INVESTORS

## KEY INVESTORS



CAPITAL ASSET BLOCK  
(Fenbushi)



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**Nucleus.Vision**

# **MEDIA MENTIONS**



# MEDIA MENTIONS

BUSINESS  
INSIDER

CBS NEWS

TheStreet

THE BLOCK

TECHWIRE  
ASIA

Nasdaq

FINANCE  
MAGNATES

\*BanklessTimes

ValueWalk

BBC  
WORLD  
NEWS

Forbes



& MANY  
MORE...

Note: This whitepaper represents a continuous work in progress. We will endeavor to keep this document current with the latest development progress. As a result of the ongoing and iterative nature of our development process, the resulting code and implementation is likely to differ from what is represented in this paper. We invite the interested reader to peruse our GitHub repo at <https://github.com/nucleusvision> as we continue to opensource various components of the system over time.

Roadmap:

- Media Mentions
- Investors
- Team
- Partnerships