Vision Network

A Distributed Extensible Virtual Network

Growing Distributed Internet Infrastructure

whitepaper v1.0.4

Keywords

VISION, VNET,

Distributed Network, Infrastructure, Communication Protocol,

Global Interoperability, VPN, Cross Internet Blockade,

CDN, Idle Bandwidth Mining, Privacy Protection

https://vision.network

In the Vision Network system,

include websites, documents, and various articles:

Uppercase ***VISION*** abbreviation
will be used to refer to the Vision Network, the entire project.

Uppercase ***VNET*** abbreviation used to refer to VNET Token

Menu

Background

- Regional network blockades
- Traditional centralized CDN services have great optimization potential for cost and efficiency
- Distributed network technology matures
- In recent years, the blockchain and cryptocurrency technology have made rapid development
- Users can participate in blockchain network collaboration even if they are not tech-savvy

Summary

The Vision Network is a distributed extensible virtual network, based on the physical network layer and the ISP network layer.

The Vision Network is based on blockchain technology, which provides distributed services such as VPN, CDN, DNS, and DDoS defense. The VNET Token with stable value scale will be used in the ecology and produce an incentive effect. Everyone can participate in distributed network construction. We believe the Vision Network, a distributed Internet infrastructure will make the Internet more open, more equal, more stable, more efficient, safer and freer.

Our Philosophy

Yearning for freedom

Free, open, equal, and shared are not just personal values and ideological preferences. These things are written in the basic protocols of the Internet and are the inevitable results of the design of early talents. A network can be as big as it is today, and there is no ***central government***, no ***parliament*** and ***political bureau***, not ideological and administrative relations at work, but a series of basic communication protocols.

An e-mail which is came from Microsoft can be sent to Gmail, because there are many intermediate servers that carry the delivery task. This delivery is neither a business task nor an administrative task. It does not bring direct commercial benefits. There is any administrative affiliation. The existence of this open network, just because if you want to participate in this game, you must accept these open game rules.

The giants on the Internet, such as Google and Facebook, are not the beneficiaries of the open architecture of the Internet. Whether it is from Pratt & Whitney, or from the perspective of providing more business opportunities, the open and free Internet spirit will really benefit us.

Perhaps not everyone agrees with these viewpoints. In some areas, for some reasons, ISP services are more like a large local area network. They are not as interconnected and open-minded as the original design of the Internet. As a group of technology geeks, although we can understand it, but we are more and more looking forward to enjoying an Internet infrastructure that is exactly the same as the original design, free, open, equal, and shared.

Same like you, our team members also need accessibility, stable and fluent network communication services, explore the world through Google and Wikipedia, share our work and life times with friends all over the world on Facebook/Instagram, Using YouTube / Twitter to see a colorful world, you and us, can not only understand the latest technological trends, academic research, cutting-edge information, but also freely communicate, discuss and collaborate.

The Internet belongs to all those who construct and use it. The future of the Internet should not be abducted and controlled by any centralized organization. The billions of people who use and participate in the Internet, and the experts who construct and maintain the Internet, they all should have the rights of freely browsing and speaking.

We are taking some actions to create a distributed, borderless, and accessible future network infrastructure through a series of technologies and standards to provide the basis for user mutual assistance services, including not only the most basic interconnection services, but also expect to build secure and shareable computing, storage and other services through either mature or innovative technology methods.

Of course, all of this, starting from barrier-free interconnection, expects your blessings and support, and welcomes the participation of all people with ideals to build a healthy basic ecological environment.

by Michael 2018

Design concept and design principle

Keep gimmick innovation away

Although the fresh definition is indeed easier to catch the eyeballs, but that is not what we want. Innovation-driven development is a complex system engineering. In the Vision Network system solutions and ecosystem, we advocate and encourage innovation that can solve practical problems, improve efficiency, reduce costs, and solve problems.

Mature and secure technical solutions will have a higher priority

In the field of distributed node-to-node networks, encryption and privacy protection and blockchain technology, many predecessors have already completed a lot of meaningful work, some of which have matured technical solutions that have been actually verified and stable in production environment.

For example, the DHT technology, represented by S/Kademlia DHT, has completed many generations of updates, the intranet penetration and node discovery and online / offline updating, the reverse proxy technology, and the distributed file sharing system represented by BitTorrent, the directed acyclic graph DAG, the Merkle tree, the asymmetric encryption and decryption technology represented by RSA / ElGamal / ECC, the virtual private network and proxy technology represented by OpenVPN and Shadowsocks(r), the secure transmission technology represented by SSL/TLS and IPsec, blockchain data structure and so on, these are very precious experience and resources.

With practical as the main purpose, technology should serve industry, concrete application in specific scenes

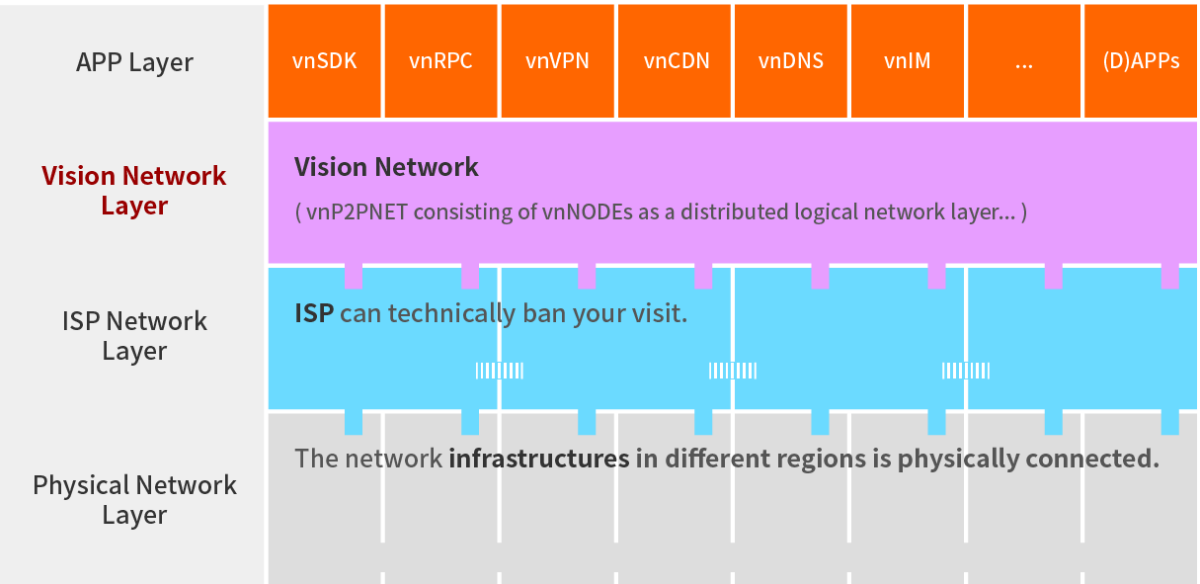
The Vision Network will prioritize mature and stable technology solutions, appropriate integration and innovation, provide services for practical and concrete applications, and cost-effectively solve specific problems in specific real-life scenes.

Do not pursue the Token price increase

Unrestrained valuation expansion is not the original intention of Vision Network. From the point of view of ecological ***currency***, the value scale is stable, the low cost is convenient to hold, the convenience of circulation and the convenience of payment have more practical significance.

Application description and economic model

A Distributed Extensible Virtual Network



The existing infrastructures in the world is physically connected. While ISPs (Internet Service Providers) provide users with network access services, they can centralize blockades and block your access. The Vision Network uses distributed peer-to-peer network technology to build a distributed, intelligent virtual network on the physical layer and ISP network layer through a large number of nodes, which can surely connect the whole world.

The Vision Network provides distributed services such as VPN, CDN, DNS, and DDoS defense. The VNET Token with stable value scale will be used in the ecology and produce an incentive effect. Everyone can participate in distributed network construction. We believe the Vision Network, a distributed Internet infrastructure will make the Internet more open, more equal, more stable, more efficient, safer and freer.

1 VNET Token = 100 GB client network traffic (price at IDC is $8.0 – 8.5)

The user running the service node makes use of idle network resources to earn VNET, and the user or organization that needs the service uses VNET exchange to settle through the vnCHAIN blockchain.

Turn user's idle network resources into cash

The vast majority of home broadband networks use less than 3% of the full-year network, a large number of network resources are idle. These idle resource fragments can be combined through technical means and can generate huge value.

With the help of Vision Network, users participating in the ecology can easily run VISION node programs on computers, routers, TV boxes, and even mobile devices, even if they do not have the professional technical ability to share idle network resources. The longer the time is online, the more VNET Token can be obtained, which can be used to exchange the services you need in the ecology, or sell them on the exchange to turn your idle network resources into cash.

VPN, Virtual Private Network

Virtual Private Network, abbreviated as VPN, is commonly used to connect private networks between large and medium-sized enterprises or groups. It is a kind of way that can use open network (usually Internet) to transmit network information of intranet. VPN uses cryptographic tunneling protocol to realize accurate and secure transmission of information.

In some regional networks where access is selectively restricted or blocked, because classic proxy services (such as HTTP proxy or Socks5 proxy, tec.) have been nearly impossible to use, VPN technology has almost become the preferred choice for cross the network blockages.

Using VPN to cross the network blockades -- obvious rigid demands

Just in China, **several tens of millions of users** with rigid demands have not been satisfied. They need services like Google, Wikipedia, Facebook, Twitter, and access to professional websites in many fields. They are mainly:

- ✓ Scientists and scholars
- ✓ Companies engaged in scientific research
- ✓ International trade practitioners
- ✓ Foreigner in China, for working, studying or traveling.
- ✓ Design Company, Film Company, Designer
- ✓ Foreign-funded enterprise employees (mainly mobile office needs)
- ✓ Overseas game users
- ✓ Crypto-currency investors / holders / developers
- ✓ Others

The network environment in China is quite typical, the demand is concentrated and universal. Actually, not only in China, but also in many parts of the world. For example, North America, Europe, and North Asia, there are also restrictions or speed limits or blockings.

Current situation and problems of traditional VPN

At present, the main way for users to go through the network blockade is to buy the VPN services provided by commercial software on a monthly basis, and very few users with technical ability may build their own servers.

These companies and software services are affected by various factors, such as clear organization, limited server IP concentration, and unstable service due to the upgrading of the blockade technology, business policies, ethics, speed limit or even close the company, and so on is not uncommon.

vnVPN

A decentralized distributed proxy VPN service with unlimited nodes, which can cross the blockade, and avoid DNS pollution. Rigid demand, huge base, clear technical path.

The business logic of matching supply and demand is similar to shared economy models such as Ube. The technical advantage is that there is no need to set up a centralized intermediary organization, vnVPN create a decentralized platform based on blockchain and code rule. The contract is settled automatically, the node inside the wall pays the VNET Token as the demand side, and the outside node uses the idle bandwidth as the service party to provide the encrypted traffic proxy service and automatically accept the VNET Token settlement, and use the PoT consensus based on the traffic. Online service, blockchain settlement.

What can vnVPN helps you?

Cross the network blockade

Without restriction, you can access any content. No matter where you are, vnVPN can always help you connect to anywhere of the Internet easily.

Use wireless networks anywhere safely

The widely used wireless hotspots not only bring convenience to users, but also bury the security problems. People who use the same network can easily eavesdrop on unprotected communications.

If you are in a bank, airport, hotel, restaurant, coffee shop, hospital, shopping mall, or any other public network, using vnVPN will allow all your communications to use secure encrypted tunnels and avoid being hacked.

One-touch connection

The vnVPN interface is concise and clean, with one-click connection and easy to use, it does not require complex configuration and can be kept running in the background.

Smart routing

Smart offload mode can automatically determine whether the access is smooth. Only when the communication is blocked, the vnVPN network proxy is activated to save the traffic cost.

Advantages of the vnVPN

	vnVPN	Traditional VPN	Non VPN
Cross the network blockade	**Yes**	Yes	No
Privacy protection	**Yes**	Part	No
Never breakdown	**Yes**	No	/
Payment methods	**By traffic**	Monthly / yearly	
Speed limit	**Fast**	Relatively fast	
Price level	**Cheap**	Expensive	
Number of nodes	**Unlimited**	Limited	
Users can participate	**Yes**	No	
Traffic is permanently valid	**Yes**	No	

- ✓ Traversing regional technology blockages using global user dynamic IP communications
- ✓ Built-in vnDNS service to eliminate centralized DNS pollution
- ✓ User privacy protection mechanism
- ✓ Infinite node
- ✓ Zero management of service nodes, turn user's idle network resources into cash
- ✓ Zero configuration of demand node, automatic update, smart proxy routing with vnPAC
- ✓ Traffic is permanently valid with no limit

CDN, Content Distribution Network

CDN is the content distribution network. By setting up node servers everywhere in the network, users can get the required content near the them, make the content more quickly and more stable, solve the situation of Internet network congestion, and improve the speed of communications to the web site.

Cost and efficiency demands of CDN service

Traditional centralized CDN services rely on IDC or cloud service providers. The number of nodes is limited, the servers and bandwidth resources are expensive. The website has to pay too much for it, however the efficiency and the user experience are also limited.

vnCDN

A decentralized distributed content of the accelerated distribution services, with unlimited nodes, it will be faster, has better prices and transparent measurement.

The traditional centralized CDN service has great potential in optimizing efficiency and cost. Due to the limitation of IDC and cloud service providers, not only the number of nodes is limited, but also the traffic is expensive. Its central main operation is also often accused of data fraud and fuzzy accounting opaque.

The vnCDN combines blockchain technology, distributed network and traditional CDN technology to share a huge user base with vnVPN, truly global infinite nodes, and more users can easily access computers, routers, TV boxes, mobile devices, or even just a RaspberryPI device running VISION node programs, taking advantage of the unlimited traffic and cost advantages of home bandwidth, sharing their idle bandwidth and storage, generating revenue, making Internet acceleration nodes ubiquitous. It also provides more affordable, faster, more nodes and transparent, metrological distributed CDN services for website owners who need to accelerate.

Advantages of the vnCDN

	vnCDN	Traditional CDN	Direct to host
Number of nodes	**Unlimited**	dozens	Only one
Speed	**Fast**	Relatively fast	Normal
Efficiency	**High**	Relatively high	Normal
Price level	**Cheap**	Expensive	Normal

Users can participate	**Yes**	No	/
Open SDK	**Yes**	No	

- ✓ Efficiency and user experience increased by more than 10 times
- ✓ Sharing a huge user base with vnVPN, truly global infinite nodes
- ✓ Allow users to use idle resources to participate in caching and distribution, and to obtain the *traffic mining* benefits of the PoT consensus mechanism
- ✓ Family VS. IDC， cost advantage of killer level
- ✓ Provide SDK to the admin management of the website, based on blockchain, the data is true and transparent, there is no possibility of fraud

DDoS Attack

Distributed Denial-of-Service Attack, abbreviated as DDoS attack or DDoS, also called flood attack, is a network attack method in which a hacker uses a plurality of hacked computers to forge a large number of normal requests. The target is to exhaust computer's network or the system resources, temporarily interrupting or stopping the service, causing its normal users to lose connections.

DDoS Defense

Through hacker intrusion detection, multi-authentication and filtering of traffic is designed to filter traffic that blocks network bandwidth and allow normal access traffic to pass through, protecting the target computer, website or service.

The situation and problems of traditional DDoS Defense

DDoS Defense is one of the major cost for services such as websites and APPs.

Because of intermittent demand, self-built protective server resources are too expensive to afford, so generally purchasing professional services is the only choice. The service provider provides traffic cleaning and protection services by setting up Access Gateway. The service provider is not much, Monopoly Competition Market.

Generally speaking, it consists of a monthly service fee and a resource consumption cost. Even if it is an entry-level service, it will cost about a few thousand dollars per month. This is simply the

basic cost regardless of whether or not there is an attack, and the cost of resource consumption once the attack occurs is much more expensive.

vnDDoS Defense

vnDDoS Defense takes full advantage of large number of distributed nodes and low cost by susing idle bandwidth to provide hybrid DDoS defense solutions and services.

More nodes, lower prices, traffic-based payments, and reliable services.

The advantage of vnDDoS security system

	vnDDoS Defense	Traditional DDoS Defense
Pay for used	**Yes**	No
Monthly fee	**None**	Expensive
Nodes	**Unlimited**	Hundreds
Price level	**Lower**	Much higher
User participation	**Yes**	No
SDK support	**Yes**	No

Proof of Traffic

Compared with the workload of ***Proof of Work***, it is proved that the accounting method of PoW does not require equipment competition or power consumption, but writes the ratio of VNET Token to network traffic flow resource service as a constant definition in the underlying code.

VNET Token -- Unique ticket in the Vision Network ecosystem

VNET Token is the unique ticket in the Vision Network ecosystem, also known as VNET, which uses ***Proof of Traffic*** consensus mechanism. It is the native asset on the vnCHAIN.

At the beginning of the project, VNET will be strictly based on the ERC20 token standard, the smart contract is created on the Ethereum network. After the vnCHAIN main network is officially installed and stabilized, the image will be migrated through signature verification.

1 VNET Token = 100GB client traffic flow

In the underlying code, we defined per unit of VNET as the client traffic of 100GBytes in the Vision Network, that is: **1 VNET Token = 100GB client traffic flow.**

PoT vs. PoW

	Proof of Traffic	Proof of Work
Hardware requirements	**Low**	Higher and higher
Power consumption	**Very economical**	Extremely wasteful

Equipment competition and power waste are recognized by the PoW consensus mechanism as the two major persistent diseases.

From the beginning of CPU mining, going through GPUs, FPGAs, and so on, generation after generation of ASIC chip mining machines that were created for the mining priced thousands of dollars, these constantly updating equipment, in addition to the internal friction of the accounting rights, and there is no other value for humanity.

The consumption of electricity is even more fearless. According to DigiConomist, 2017, bitcoin mining consumes 30 billion kilowatts of electricity, accounts for 0.13% of global electricity consumption, exceeds the national electricity consumption of dozens of countries, and showing a rising trend year by year.

The Vision Network pioneered the definition of the ***Proof of Traffic*** consensus mechanism, the VISION node has only a very low performance requirement for the device, rather than a more meaningful power race. A $35 Raspberry Pi (see attached, only consumes 1 degree of electric power per week) is enough to meet the hardware requirements of a node, and higher computing performance will not bring about a linear increase in revenue.

In the age of the Internet, bandwidth and traffic are ***clearly valued and easily measurable resources.*** Quantifying the traffic services provided by nodes as universal equivalents that are more ***currency means*** not only a solid value base but also VNET Token's dollar price is more stable, and can effectively avoid the ***news pricing, PR pricing, emotional pricing***. And on the other way, it effectively avoids unrestrained price speculation at the same time.

Reference links:

- ✓ RaspberryPI
  - https://www.raspberrypi.org/
  - https://en.wikipedia.org/wiki/Raspberry_Pi
  - https://zh.wikipedia.org/wiki/%E6%A0%91%E8%8E%93%E6%B4%BE

Service resource price of IDC

For 100GB network traffic, there is a price reference for mature IDC, with Amazon Web Services AWS, for example, priced at about **$8.50** per 100GB traffic and Google Cloud Platform GCP at about **$8.0**.

Accelerating traffic is more expensive, while ordinary traffic is cheaper.

CDN needs node storage and outlet traffic, and VPN service needs both downlink and uplink traffic to complete proxy forwarding, that is, the client traffic of 100GB is about equal to the node traffic of 200GB (100GB upstream 100GB downlink).

Therefore, 100 GB client traffic flow, anchored to 1 VNET, also coincides with the actual intrinsic use value.

Reference links:

- ✓ AWS Amazon Web Services
  - https://aws.amazon.com/directconnect/pricing/
  - https://aws.amazon.com/cloudfront/pricing/
- ✓ GCP Google Cloud Platform
  - https://cloud.google.com/interconnect/
  - https://cloud.google.com/cdn/pricing

The VNET Token dollar price should increase to the internal value gradually and be relatively stable

We believe that the legal currency will not disappear in the short term, and that long-standing habits will allow more people to use the fiat currency to price products or services. At the same time, we expect that the VNET Token value scale after ecological maturity is relatively stable (that is, the legal currency price is relatively stable), and the basic setting of 1 VNET = 100 GB can ensure that the market circulation price of VNET Token gradually matures with the ecological value in practical use value.

Official server nodes around the world would provide initial ecological services to users

In the initial stage of ecological start-up, the official server nodes in 86 IDCs around the world will provide stable services to users. As time goes on, more node programs will be run by users, and the ecology will become more mature.

Technical path

vnP2PNET and vnNODE

Distributed peer-to-peer networks, all over the world

vnP2PNET is the basis for the interconnection and interoperability of nodes in the entire the Vision Network.

The vnNODE user nodes all over the world run on the basis of a series of protocols and rules, which constitute the vnP2PNET distributed peer-to-peer network. These techniques are being used in several scenarios and systems such as BitTorrent, BitCoin and Ethereum and have been validated and basically mature.

Reference links:

- ✓ P2PNET
  - https://en.wikipedia.org/wiki/P2pnet
  - https://zh.wikipedia.org/wiki/%E5%88%86%E6%95%A3%E7%BD%91%E7%BB%9C
- ✓ BitTorrent
  - http://www.bittorrent.com/
  - https://en.wikipedia.org/wiki/BitTorrent_(disambiguation)
  - https://zh.wikipedia.org/wiki/BitTorrent
- ✓ BitCoin
  - https://bitcoin.org/
  - https://bitcoin.org/bitcoin.pdf
  - https://en.wikipedia.org/wiki/Bitcoin
  - https://zh.wikipedia.org/wiki/%E6%AF%94%E7%89%B9%E5%B8%81
- ✓ Ethereum
  - https://www.ethereum.org/
  - https://github.com/ethereum
  - https://en.wikipedia.org/wiki/Ethereum
  - https://zh.wikipedia.org/wiki/%E4%BB%A5%E5%A4%AA%E5%9D%8A

vnCHAIN, Blockchain

The design and implementation of the vnCHAIN main chain will be as simple as possible to keep the minimum requirements for computing and storage resources of the node. Storage updates, clearing, and contract execution of the latest vnPAC rules will occur on the vnCHAIN main chain, while expired data will be considered redundant and automatically backed up to other symbiotic decentralized systems (such as IPFS / EOS, etc.) for queries. And of course, nodes can also choose to save the full height of blocks (the default is to save blocks and snapshots for 255 days).

vnCHAIN uses the PoT consensus mechanism and the random accounting strategy, and there is no possibility of computing competition, which further reduces the requirements on node hardware and increases scalability.

Allow one-to-many bindings and untying of vnWallet and vnNODE

Using the logical structure of the vnWallet parallel to the vnNODE, vnWallet and vnNODE use mutually independent private and public keys, and vnWallet and vnNODE can transfer freely between themselves.

Allow one-to-many bindings and untying of vnWallet and vnNODE:

- ✓ Allow vnWallet and vnNODE to be associated with a simultaneous signature. After the binding, the VNET Tokens for both vnNODE cost and revenue will be automatically included in the address of the corresponding vnWallet.
- ✓ Allow vnWallet to initiate unbundling of vnNODE operations with a unilateral authorization signature. After unbinding, the cost and revenue of vnNODE are no longer associated with the past vnWallet, but only belongs to the vnNODE's own address.

vnSDK

vnSDK is the first end user application built on a vnP2PNET network (and encapsulates vnRPC remote procedure call protocol), which defines a series of standards and provides convenient interfaces for end users. It can take advantage of the advantage of vnCHAIN block chain. At the same time, give VISION the potential to expand its business in the future. Both official applications and future involvement of more partners or organizations in the development of VISION applications will facilitate the vnSDK and will make the entire ecosystem more open and rich.

The vnSDK is the first end-user application built on a vnP2PNET (encapsulating the vnRPC at the same time). This development kit defines a set of standards and provides a convenient interface for the end user to take advantage of the vnCHAIN. At the same time, it gives VISION the potential to expand the scale in the future. Whether it is an official application or the

participation of more partners or organizations in the application development of VISION in the future, the vnSDK will provide more convenience and will promote the entire ecosystem to be more open and colorful.

vnVPN model and principle

vnFREE non-state protocol

The exclusive algorithm vnFREE stateless protocol, based on TCP, can achieve second-level switching of service nodes without waiting for software disconnection and reconnection like traditional VPN. Military-grade AES-256 encryption, and then superimposing obfuscated packets, makes it more similar to the traffic characteristics of HTTPS and it is difficult to be detected by DPI deep packet inspection.

Reference links:

- ✓ TCP
  - https://en.wikipedia.org/wiki/Transmission_Control_Protocol
  - https://zh.wikipedia.org/wiki/%E4%BC%A0%E8%BE%93%E6%8E%A7%E5%88%B6%E5%8D%8F%E8%AE%AE
- ✓ AES
  - https://en.wikipedia.org/wiki/Advanced_Encryption_Standard
  - https://zh.wikipedia.org/wiki/%E9%AB%98%E7%BA%A7%E5%8A%A0%E5%AF%86%E6%A0%87%E5%87%86
- ✓ HTTPS

- https://en.wikipedia.org/wiki/HTTPS
- https://zh.wikipedia.org/wiki/%E8%B6%85%E6%96%87%E6%9C%AC%E4%BC%A0%E8%BE%93%E5%AE%89%E5%85%A8%E5%8D%8F%E8%AE%AE

✓ Deep Packet Inspection

- https://en.wikipedia.org/wiki/Deep_packet_inspection
- https://zh.wikipedia.org/wiki/%E6%B7%B1%E5%BA%A6%E5%8C%85%E6%A3%80%E6%B5%8B

vnTUNNEL, Dynamic encrypted tunnel

Based on the mature OpenVPN, the obfuscation feature similar to Shadowsocks(r) has been added. A proprietary protocol for continuous connection has been developed that can use both UDP and TCP modes, dynamic certificate encryption, and good bandwidth conditions at the service node. Under the circumstances, shorter delays and higher response efficiencies can be achieved.

Based on the mature OpenVPN, we add the obfuscation feature like Shadowsocks(r), and develop a kind of proprietary protocol of continuous connection, which can use both UDP and TCP mode, dynamic certificate encryption. When the bandwidth condition of service node is good, shorter delays and higher response efficiencies can be achieved.

Reference links:

✓ Tunneling Protocol

- https://en.wikipedia.org/wiki/Tunneling_protocol
- https://zh.wikipedia.org/wiki/%E9%9A%A7%E9%81%93%E5%8D%8F%E8%AE%AE

✓ OpenVPN

- https://en.wikipedia.org/wiki/OpenVPN
- https://zh.wikipedia.org/wiki/OpenVPN

✓ Shadowsocks

- https://en.wikipedia.org/wiki/Shadowsocks
- https://zh.wikipedia.org/wiki/Shadowsocks

✓ UDP

- https://en.wikipedia.org/wiki/User_Datagram_Protocol
- https://zh.wikipedia.org/wiki/%E7%94%A8%E6%88%B7%E6%95%B0%E6%8D%AE%E6%8A%A5%E5%8D%8F%E8%AE%AE

vnDNS, Non-pollution distributed domain name service

Although some international companies or organizations can provide clean DNS resolution services (such as IBM, Google, CloudFlare, etc.). Users still have the possibility of failing to obtain the correct resolution results, because communication packets may still be intercepted and tampered with by the ISP

Based on distributed network technology, Distributed Domain Name Service is implemented. You are protected from DNS cache pollution.

In the initial implementation of vnDNS, the node agent parsing in trusted area will be the main way to transmit the communication in the network through the dynamic encryption tunnel, and the data will be trusted. Will no longer be hijacked interception and pollution, the later development will be upgraded to a fully independent distributed DNS function of the service application

Reference links:

- ✓ DNS
  - https://en.wikipedia.org/wiki/Domain_Name_System
  - https://zh.wikipedia.org/wiki/%E5%9F%9F%E5%90%8D%E7%B3%BB%E7%BB%9F
- ✓ DNS pollution
  - https://zh.wikipedia.org/wiki/%E5%9F%9F%E5%90%8D%E6%9C%8D%E5%8A%A1%E5%99%A8%E7%BC%93%E5%AD%98%E6%B1%A1%E6%9F%93
- ✓ Google Public DNS
  - https://en.wikipedia.org/wiki/Google_Public_DNS
  - https://zh.wikipedia.org/wiki/Google_Public_DNS

DDoS defense which is derived from vnDNS

The completely free distributed vnDNS resolution service can also be combined with reverse proxy technology, with the help of the huge VISION user base and the number of nodes, VISION could protect website from DDoS attacks. The website pays VNET, and the participating nodes get VNET as revenue.

Vision Network users can not only contribute to network security protection, but also increase VNET Token revenue.

Reference links:

- ✓ DDoS
  - https://en.wikipedia.org/wiki/Denial-of-service_attack
  - https://en.wikipedia.org/wiki/Denial-of-service_attack#Distributed_attack
  - https://zh.wikipedia.org/wiki/%E9%98%BB%E6%96%B7%E6%9C%8D%E5%8B%99%E6%94%BB%E6%93%8A

vnPAC Smart routing

Automatic judging and updating based on ASN in ISP region

PAC, Proxy auto-config

vnVPN does not set a centralized PAC file, it will automatically identify the user's ISP's system number - ASN, automatically determine whether the connection is unblocked, automatically determine whether other nodes in the ASN area are unblocked, automatically update the results with the proxy rules, and perform a smart routing (only when the proxy is necessary).

Ordinary users can use the network services without any complicated manual configuration and only need to keep the vnVPN program running in the background.

Reference links:

- ✓ PAC
  - https://en.wikipedia.org/wiki/Proxy_auto-config
  - https://zh.wikipedia.org/wiki/%E4%BB%A3%E7%90%86%E8%87%AA%E5%8A%A8%E9%85%8D%E7%BD%AE
- ✓ ASN
  - https://en.wikipedia.org/wiki/Autonomous_system_(Internet)
  - https://zh.wikipedia.org/wiki/%E8%87%AA%E6%B2%BB%E7%B3%BB%E7%BB%9F
- ✓ ASN Query
  - https://www.ultratools.com/tools/asnInfo
  - https://en.mk/asn

vnCDN

A brief description of vnCDN has been provided in the ***Application description and economic model*** section of the previous section. The traditional CDN technology is so mature that the benefits of universal participation, efficiency improvement, cost reduction, and service transparency brought about by the integration of blockchain and token are even more obvious.

We won't waste too many repetitions in this article. And only attach CDN terms on Wikipedia for reference:

- https://en.wikipedia.org/wiki/Content_delivery_network
- https://zh.wikipedia.org/wiki/%E5%85%A7%E5%AE%B9%E5%82%B3%E9%81%9E%E7%B6%B2%E8%B7%AF

Team

Given the special nature of vnVPN applications in the Vision Network, we had to choose to temporarily keep team members anonymous and retain the right to disclose the true identity of team members.

Currently, Vision Network has gathered a group of like-minded and capable technology geeks and business design geniuses. Project sponsor Michael is a serial entrepreneur who specializes in cross-border, and is also an excellent architect. Our team includes members of the Microsoft P2P project, the master engineer of the underlying communications protocol for a well-known international router, and the digital technology elite from Google, IBM and Oracle. The backbone is already full-time on the Vision Network team and some members work part-time.

If you are interested in participating in our project, please send E-mail to join@vision.network

Roadmap

- 2017.Q3 Project committee established
- 2018.Q1 Feasibility and technical demonstration completed
- 2018.Q2 Vision Network whitepaper v1.0 released
- 2018.Q3 VNET Token Airdrop by Contract
- 2018.Q3 VNET Token Early-bird/Pre-Sale
- 2018.Q3 VNET Token Airdrop by Invitation
- 2018.Q3 150-500 official nodes launched
- 2018.Q4 vnVPN alpha
- 2019.Q1 VNET Token Directed Airdrop
- 2019.Q1 VNET Token Public Sale
- 2019.Q2 vnP2PNET beta
- 2019.Q3 vnCHAIN beta
- 2019.Q4 vnSDK beta
- 2019.Q4 vnVPN beta
- 2019.Q4 Complete migration upgrade from ERC20 Token to vnCHAIN

More

Thinking about Tor Network

After the PRISM incident, privacy protection has been increasingly focused and respected by every user who needs network security communications.

Tor, The Onion Router, is an open source, free software for anonymous communications. The project was initially sponsored by the Naval Research Laboratory. It can help users communicate and browse. Tor anonymously on the Internet through the way of Entry node, Middle node and Exit Node multi-layer proxy, which makes the user's true source IP untraceable.

Obviously, the design of vnVPN has naturally satisfied the technical foundation for preventing tracking, anonymous browsing and communication. If VISION goes one step further and implements a multi-proxy application vnTOR, vnTOR has obvious advantages over the original Tor network. In other words, an ecosystem that uses VNET Token can motivate the participation of nodes (more service nodes participate, not just use and claimants), and network quality and service quality are more stable and more efficient.

Reference links:

- ✓ 2016 Movie ***Snowden***
  - http://storetorrents.com/hash/3937111709900E5D58C2C8945D9ABE63365C4545
  - magnet:?xt=urn:btih:3937111709900e5d58c2c8945d9abe63365c4545&dn=Snowden.2016.1080p.WEB-DL.HEVC.x265.Ac3.6Ch-NEBO666
  - http://storetorrents.com/hash/44BB5BBE5AFCFFD391DEC35EC9359AE07022F2B8
  - magnet:?xt=urn:btih:44bb5bbe5afcffd391dec35ec9359ae07022f2b8&dn=%E6%96%AF%E8%AF%BA%E7%99%BB.2016.%E4%B8%AD%E8%8B%B1%E5%AD%97%E5%B9%95%EF%BF%A1CMCT%E6%AD%BB%E4%BA%A1%E9%AA%91%E5%A3%AB
- ✓ Edward Snowden
  - https://en.wikipedia.org/wiki/Edward_Snowden
  - https://zh.wikipedia.org/wiki/%E7%88%B1%E5%BE%B7%E5%8D%8E%C2%B7%E6%96%AF%E8%AF%BA%E7%99%BB
- ✓ PRISM
  - https://en.wikipedia.org/wiki/PRISM_(surveillance_program)
  - https://zh.wikipedia.org/wiki/%E7%A8%9C%E9%8F%A1%E8%A8%88%E7%95%AB
- ✓ Tor
  - https://www.torproject.org/

- https://en.wikipedia.org/wiki/Tor_(anonymity_network)
- https://zh.wikipedia.org/wiki/Tor

vnTOR, Extensible anonymous network service

Obviously, Tor has great value and reference value for the exploration and implementation of the network's anonymity and neutrality, and we believe that the crux of the problem that currently leads to the slow and unsuitable use of the Tor network lies in the no incentives. Most of the users who participate in Tor are requesters. They are online when they use it, and they don't keep running when they are not used. As a result, the number of service nodes is in the state of shortage of demand for a long time.

According to the actual development of the Vision Network project and opinions of the community, we may develop and implement the vnTOR multi-proxy function in the later period (the user selects the number of proxy layers and pays the corresponding VNET to drive two or more nodes to participate in the routing of data packets. The user can know the *node_id* of the service node on the path, and the service node is only responsible for completing the data packet routing between the adjacent nodes. The user's source IP is invisible to both the intermediate node and the target website.). It can even be connected to Tor. The network is open, allowing users to visit the address with an ***.onion*** suffix, even you can use Hidden Wiki and the Torch search engine.

Of course, this part of the work in the future is likely to involve more implementable developers in the design and application by rewarding VNET Token.

Reference links:

- ✓ The Hidden Wiki
  - https://en.wikipedia.org/wiki/The_Hidden_Wiki
  - https://zh.wikipedia.org/wiki/The_Hidden_Wiki
- ✓ Torch
  - https://en.wikipedia.org/wiki/List_of_Tor_hidden_services#Search_engines
  - https://zh.wikipedia.org/wiki/%E5%8C%BF%E5%90%8D%E6%9C%8D%E5%8A%A1%E5%88%97%E8%A1%A8
- ✓ Dark net / Deep web
  - https://en.wikipedia.org/wiki/Darknet
  - https://zh.wikipedia.org/wiki/%E6%9A%97%E7%BD%91
  - https://en.wikipedia.org/wiki/Deep_web

- https://zh.wikipedia.org/wiki/%E6%B7%B1%E7%BD%91

Future services based on Vision Network will also be settled using VNET Token

Benefit from the stable value anchor design of VNET Token, which makes VNET closer to the true currency (value scale is stable, convenient to hold and circulate). In a sense, not only the software and services officially developed by Vision Network. With the promotion of development support policies and support funds, more third-party software will also use VNET for service settlement.

VNET Token and plan of distribution

Use it, invest it, not hype it

This is also our ***blockchain technology application*** value philosophy.

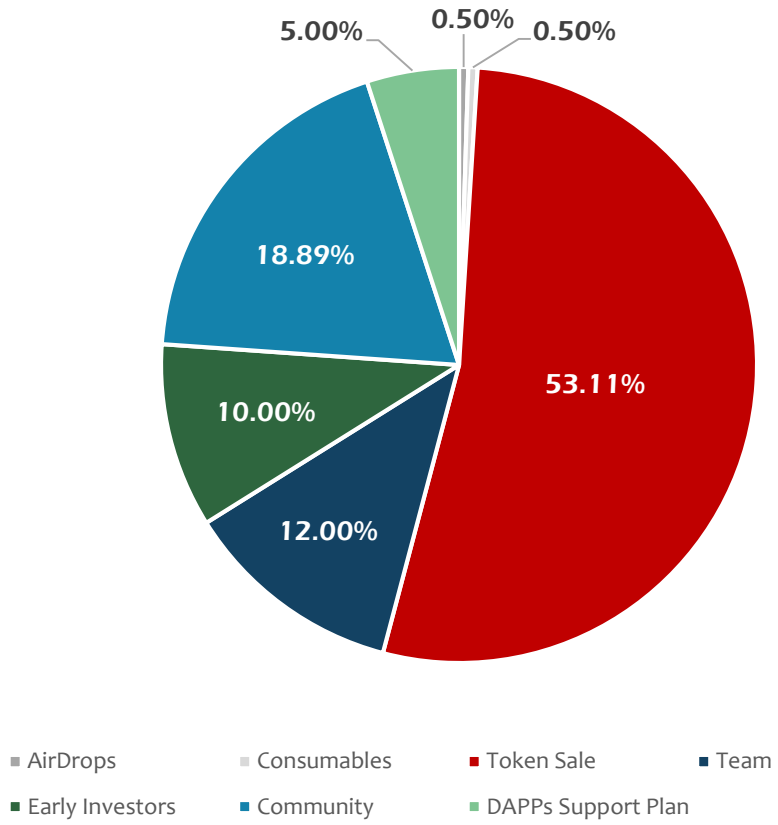
We are building an increasingly mature system, in which VNET Token will be the only measure of value and means of payment in such a sustainable and healthy environment. It is clear that the basic design of 1 VNET = 100GB after ecological maturity will ensure that the price of VNET is not destined to deviate too much from the anchoring of its actual use value. We expect users with real demands to buy VNET through exchanges or other channels and use it for appropriate network services. Of course, the value logic of VNET is so clear that proper investment is also a good choice.

Total 35 billion, absolute majority amount will be handed over to the users

The team and the early investors held only 22% of the total, in which the project team held 12% total using an open smart contract address and locked all balance for 3 years, while the balance of the early investors is locked up by 80%.

78% of VNET will ultimately be held by users, with 53.11% of sales being the largest share, while the remaining 18.89% will be used for community rewards, and 5% for application development support plan.

VNET Token distribution plan



Team fund	**12%**	100% locked for 3 years, till 2021.06.30
Early Investors	**10%**	80% locked for 1 year, till 2019.06.30
Air Drops	**0.5%**	

It is used to reward the Ethereum community users and promotion before the public sale, etc.

Token Sale **53.11%**

17.14% for directed private sale, 35.97% for public sale.

DAPPs Support Plan **5%**

It is used to enrich Vision Network ecology, foster and encourage developers to build more decentralized application services.

Community and business **18.89%**

It is used for exchange listing, service node incentive, community construction and maintenance, etc.

Consumption pool **0.5%**

For special user contribution awards and public sales promotions, the white list of individual or organizational users will be charged to the consumer pool contract account until they are used up.

Conclusion

Vision Network takes the whole network interworking service vnVPN as the breakthrough point, the demand is rigid, the cardinality is huge, the technical path is clear, in view of the network blockade restriction question and so on, provides the systematic solution and the ecological incentive mechanism. It is easy to quickly form user and ecological advantages, which is helpful to further promote vnCDN content accelerated distribution services and more service applications. Vision Network, a distributed extensible virtual network is growing into a distributed Internet infrastructure.

VNET Token's value anchoring rules, which define the clear value scale in the codes, will lead to relatively stable dollar price of the VNET Token. It is the unique ticket in the Vision Network ecosystem, and it is more likely to make it a cross-ecological and easy-to-use generic equivalent.

Special tips

The Vision Network team will not ask users to transfer their VNET Token to any wallet address and non-source verified smart contract address at any time. Please pay attention to the security of assets.

Vision Network official website

https://vision.network