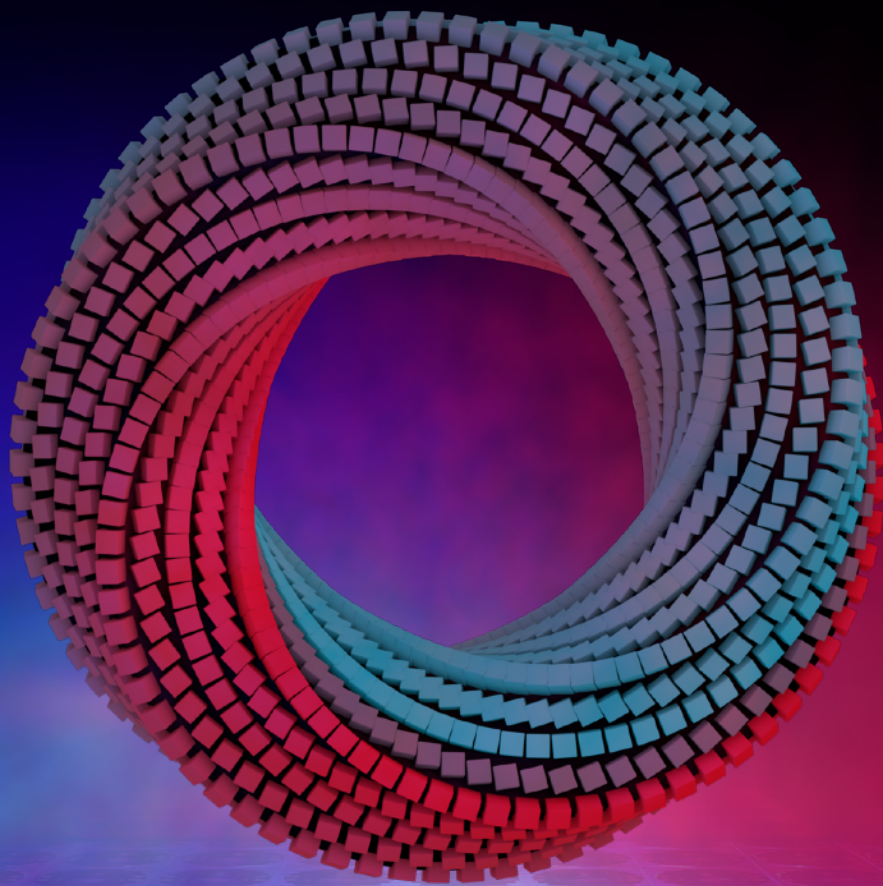# Bitoku

Next-Gen Storage Blockchain

"Bitoku (美徳, Japanese for virtue) is the **world's first** storage blockchain that **people really want** to use by **being true** to the four Bitoku commandments."

– Bernie Blume

Founder of Bitoku Labs

The 4 Bitoku Commandments

1. **Save the environment** - Don't use proof of work.

2. **True decentralization** - Owned and governed by you, the users. Can't be censored by any single entity.

3. **Apps are everything** - Enable an ecosystem of apps built on Bitoku, such as a Dropbox-like experience, enterprise backup & restore or an S3 compatible key-value store.

4. **Works for all** - Fast, scalable, low fees. Can use simple devices (Antsle and others) for providing storage space.

Bitoku is 美徳 in Japanese Kanji (adopted Chinese characters).
It means "virtue" or "virtues".

In Chinese, 美徳 is beautiful (美 měi) + virtue (徳 dé).

Fun fact:
Chinese 美国 = měi guó = country of beauty = America
Chinese 徳国 =dé guó = country of virtue = Germany
So Bitoku (美徳) has both countries of our founder Bernie Blume

Bitoku

Blockchain 1.0 was just currency, like Bitcoin, Litecoin, Dogecoin, etc.

Blockchain 2.0, that was pioneered by Ethereum, introduced **programmability**, often dubbed a "world computer".

The **issue with Blockchain 2.0** is that their focus is on "processing", such as processing transactions and smart contracts, i.e. program code.

However, storage of data in all shapes and forms is **at least as important** as processing. There is no "data processing" without **data**. And for most classical blockchains today, data storage hasn't been a top design priority.

Storing the world's data reliably, in a decentralized way, with fast and easy participation and retrieval, is a critical component of the further develop-

ment of our world. There are a few decentralized, blockchain-based storage platforms out there, pioneered by Filecoin.

However, adoption in the real world has been lagging expectations.

That's why Bitoku is setting out to create a decentralized storage blockchain that people like you and me **would actually want to use**.

A decentralized blockchain that **developers will build on** to create experiences that they know from centralized services such as Dropbox, enterprise backup, key-value store, and more.

A storage blockchain that **works for all**, doesn't strain the **environment** - **owned and governed by you**, the users.

Welcome to **Blockchain 3.0**. Welcome to the future of the world's information.

Bitoku

Not Financial Advice

Mission

To create a platform that stores the world's information in a decentralized, peer-to-peer, censorship-resistant way, and gives ownership and governance to the users.

To enable everyone to participate, even with regular consumer devices.

To minimize the environmental impact of information storage, retrieval and validation.

To create the platform so performant, secure, efficient and easy to use that developers will prefer Bitoku to build storage-enabled apps, eventually touching billions of lives.

The Power of 3

Venn diagram with three overlapping circles:

- **App Developers**
- **Node and Token Holders**
- **Users**
  - Miners (Storage Providers)
  - App Users (Storage Consumers)

Center: **Bitoku**
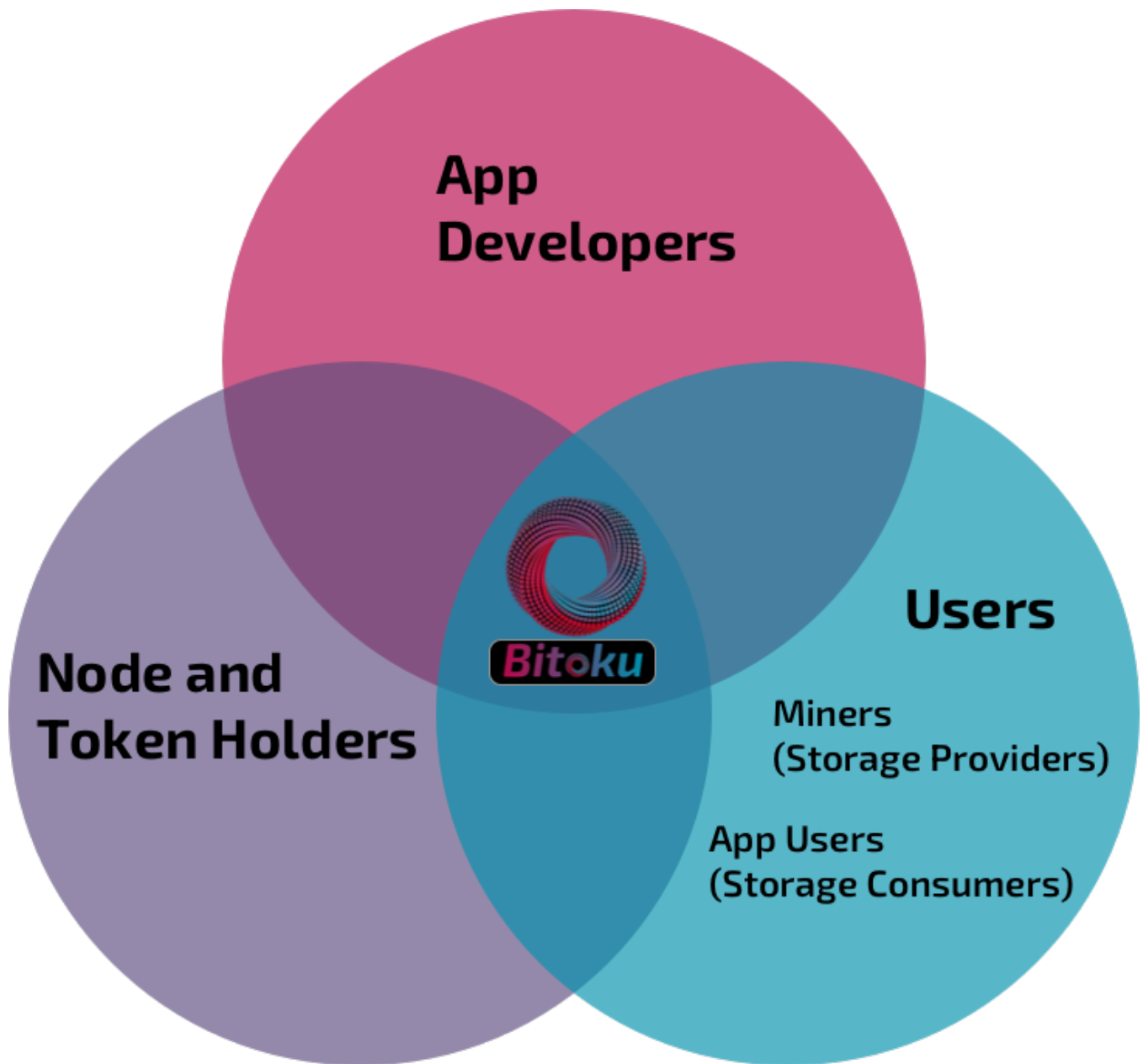
The days of blockchains
ignoring the user base
&
not rewarding the node and token holders
are over!

Bitoku Preferred Club

Any great movement that makes a substantial positive impact to humankind has a group of true believers and supporters at its core. These are the folks that are crazy passionate about the mission that they want to be part of the movement as much as they can.

You can join the Bitoku Preferred Club to symbolize you belong to that core group.

Bitoku Preferred Club members are required to provide a non-refundable deposit of 1,500 OKU to join. This deposit is intended to limit the Bitoku Preferred Club to the most enthusiastic community members who are with us from the beginning.

Benefits for Bitoku Preferred Club members:
- Special private channel in Bitoku's Discord
- Early access to anything new in the Bitoku universe
- Voice heard for future direction of the movement
- Exclusive collectible NFTs just for Preferred
- Special merchandise branded Bitoku Preferred

Bitoku Preferred will bring you inside that walled garden that keeps the non-committed folks out. It will make you an integral part of the Bitoku movement and grant you rewards not available to the public.

181,000,000,000 Terabytes

Exponential Growth of the World's Data

■ in Zettabytes (Billions of Terabytes)

180	
135	
90	
45	
0	2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025
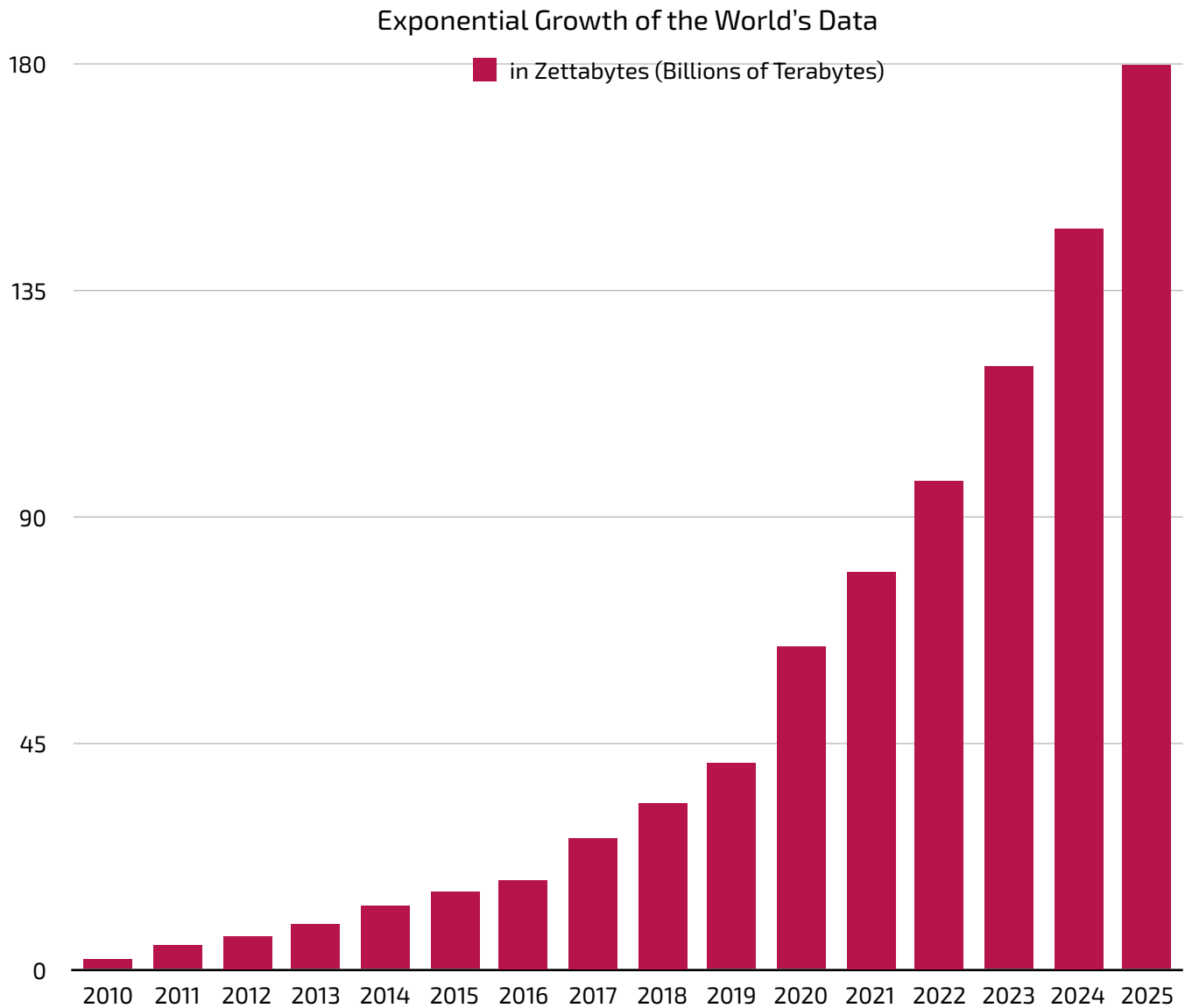
Volume of data created, captured, copied and consumed worldwide
Source: Statista, various publications.

The world's data is growing **exponentially**, and there is **no end** in sight. It all needs to be stored, for various durations. The trend toward **decentralized storage is unstoppable**. The worst-case for humankind is it will mostly be stored at Google, Amazon, etc.

Bitoku Tokenomics

- When the Bitoku Blockchain MainNet goes live in 2023, OKU will be the medium of exchange to pay for data storage.

- However, Nodes will emit daily rewards in the form of OKU tokens & can be used for storage services on okubin.com even before the Bitoku chain goes live.

- Bitoku will emit 1,000,000 OKU tokens per day, or 365,000,000 OKU per year plus reserve for affiliates at 10%.

    500,000 OKU/day - Bitoku Labs (development and management)
    500,000 OKU/day - Shared equally among all node owners

- Rewards will be emitted over a period of 10 years, limiting the max. supply to 4,015,000,000 OKU (including 10% affiliate reserve).

    As MainNet goes live, the unconditional rewards will become contingent on storing data / validating transactions, but the 1,000,000 OKU emissions per day and the strict max. supply will stay intact. After 10 years, supply will always be kept below the 4.015B through a burning scheme.

- Platinum nodes (OKUPT) will count as 6 Founders Nodes (OKUFND). So the Platinum Nodes have 6x the rewards power compared to Founders Nodes.

    OKUPT maximum supply ever: 1,400
    OKUFND maximum supply ever: 50,000

- The first 200 Platinum nodes are reserved for Bitoku Labs and the team. The next 100 Platinum Nodes sell for $100, then nodes #301-#400 sell for $200, and so on. The price will increase by $100 respectively for every 100 nodes sold.

- Bitoku will sell at prices on a first-come-first-served basis. So you have to be fast to buy at low prices and get high rewards (share with fewer fellow nodes).

Bitoku Nodes

What exactly am I buying?

When you purchase a Bitoku Platinum Node (OKUPT) or a Bitoku Founders Node (OKUFND), you are securing a license to operate a **Validator Node** in the future Bitoku social storage blockchain. You are NOT buying hardware.

Even BEFORE your node license will materialize later on by running a PHYSICAL node, later on, your Node license as certified by OKUPT and/or OKUFND tokens in your wallet will **start earning you OKU rewards** each and every day, from day 1.
We have two stages of Validator Node activation. You will need to provide the computer hardware required to run the Validator Node in stage 2, and we will communicate the hardware requirements as the launch date approaches in 2023.
There are no hardware requirements whatsoever in stage 1, other than your Phantom wallet. Note that storage nodes will be different from validator nodes. The validator nodes are the backbone of the network with far superior economics than the permissionless storage nodes.

Stage 1. You have some nodes in your NodeStore Account, which you can see on your My Nodes page. These node licenses communicate with the smart contract that distributes the OKU tokens each day and is the verification needed for any future rewards. Some people will purchase multiple Nodes. Each license for each Node will need to be safely engraved and publicly provable in your NodeStore account on the blockchain. This will trigger the accrual of your daily rewards.

In **Stage 2**, you can finally run the Bitoku Validator software on individual computers that are connected to the Internet. **Your physical validator node(s)**, enabled by the OKUPT / OKUFND licenses your can purchase today, **will be the backbone of the Bitoku Network**, verifying and validating that all storage nodes store and keep the data they are supposed to, and validating all transactions such as creating, copying, moving or deleting files or objects, reserving storage space and redundancy levels.

Bitoku Nodes (2)

Stage 2 will start with a DevNet and then TestNet, which will not work on real OKU tokens. We expect to **launch mainnet-beta** in the third quarter of 2023. By then, the basis for earning your rewards will **switch** from the pure node license in your wallet to operating your physical node.

Purchasing Nodes in a blockchain is an interesting decision. If you purchase **early in the cycle,** you get your node at the cheapest price and receive the largest amount of reward coins. **Waiting too long** to buy a node may diminish the risk but they become more expensive to buy, often to the point of pricing people out of Node ownership.

Our Nodes are **not intended to be an investment**. Although our Node owners will be rewarded in OKU tokens, Node operators must be part of our ecosystem because they believe in **our mission and our vision** to provide the missing storage layer to Web3, DeFi, and the Metaverse.

There will only ever be 1,400 Platinum Nodes (200 of which for the Bitoku team, 100 as strategic reserve for future strategic partners) and 50,000 Founders Nodes. They start at $200 USD and increase by $100 USD each time 100 Nodes are sold. All Node owners receive **an equal split per node** of the allocated 1,000,000 OKU tokens each day, and each Platinum has 6x the rewards power of a Founders node. Every year the coin allocation is 365,000,000, plus a 10% reserve for affiliates. Once all 4.015 billion tokens are fully distributed after 10 years, only transaction fees will be paid to Node Owners in place of the daily token allocation.

When mainnet-beta goes live, transaction fees and token burns will be introduced, **gradually replacing** the unconditional rewards of the time before launch. This will enable the OKU supply - even after 10 years - to never exceed the 4.015B OKU limit, and for the total net daily emissions to never exceed 1.1M (1M + 10%) OKU.

道　The DAO　道

DAO (道) is not only the natural order of the universe in East Asian religions, but also a Distributed Autonomous Organization that Bitoku will adopt to govern the network.

To become a DAO member you purchase nodes. Your voting power is derived from the number of nodes and associated OKU tokens.

DAO members have the right to vote on the future of the platform, technical improvements, and – with supermajority – on foundational things such as changes to the tokenomics.

This way (yes, 道 means "way"), **you**, the node owners, will govern the Bitoku network – not banks or large corporations.

Market & Use Cases

Rebuilding the world's IT, trustless & censorship resistant

Blockchain 2
No Random Access Storage Layer
Everything's a Ledger
Data uploaded in error stays there
Large datasets crazy expensive
No fast search / reporting

DeFi
on Blockchain 2

Web3
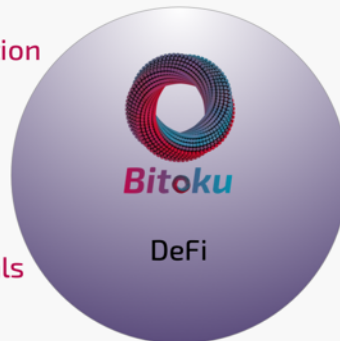on Blockchain 2

Metaverse
on Blockchain 2

Blockchain 3.0
with Bitoku Social Storage Layer

Document uploads w/ expiration

Encrypted & deletable

Fast search & reports

On-chain, trustless appraisals

Bitoku
DeFi

Dropbox-like file sharing
Backup & Restore
S3 Key/Value Store
E-Commerce / Catalogs
Social Media w/ Edit/Remove
Encrypted Storage
Trustless Search Engines!

Bitoku
Web3

Editable on-chain gaming assets
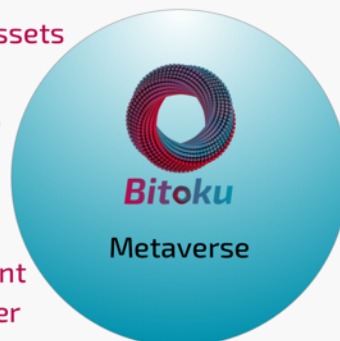Digital Public Records
Removable Images
Removable Videos
In-game books
In-game courses
In-game programmable content
Build your own bot/character

Bitoku
Metaverse

Sound Money, but Dumb
Blockchain 1.0

Programmable (smart contracts)
Blockchain 2.0

Evolved

Static Ledger

Compute (EVM etc.)
No Random Access Storage ❌

Go-To-Market Strategy

1. Node Owners

Persona: Passionate crypto enthusiasts.
Message: Be among the firsts to be part of an important paradigm shift.
Channel in Private Sale: Known, closed user group.
Channel in Public Sale: YouTube influencers, press, social media.

2. Storage Node Operators

Persona: Crypto enthusiasts, IT Pros with spare capacity.
Message: Turn your spare SSD to profits while supporting an important paradigm shift.
Channel: Node affiliates, YouTube influencers, PR, social media.

3. App Developers

Persona: Innovative startups building for DeFi, Web3, Metaverse.
Message: Finally build storage-enabled blockchain apps.
Channel: Hackathons, Solana launchpads, PR, trade shows, blockchain events, speaker assignments.

Social API for Virality

4. End Users

Persona and message varies by app. End users are being reached indirectly, mostly through App Companies, but also through PR that's mainly targeted to App Developers and Node Owners.

The State of Storage

Traditional computers (non-blockchain) have

- ⫸ Compute (CPU+RAM) **and**
- ⫸ Random Access Storage (HDD, SSD).

DeFi, Web3, and the Metaverse are **suffering severe limitations** in innovation due to the lack of a (random access) storage layer.

Existing distributed storage solutions are **inappropriate** because they are

- ⫸ focused on archival (not random access, edits/deletes) and/or
- ⫸ not smart-contract native (pure static storage) and/or
- ⫸ controlled by a central organization and/or
- ⫸ heavy on PoW, PoST, and hardware requirements.

Modern smart contract chains are considered by many as "**world computers**". However, they **lack a critical component** to become that: A random access, on-chain, fast storage layer that's **natively baked into the smart contract** platform it runs on.

Bitoku provides a social storage API, **connecting Solana & the Bitoku chain**. The latter performs and validates random access storage operations, such as

- ⫸ Object/file **CRUD** (create, read, update and delete)
- ⫸ Read/write file system data blocks from/into **Solana accounts**
- ⫸ Search (incl. full text), merge, combine & similar **higher-level operations**
- ⫸ Manage information about participants (e.g. profiles): **social API**.

Bitoku adds the missing storage layer to smart contract blockchains

Why Social Storage

One remarkable event in the history of computing was the advent of Github, and their remarkably terse and fitting slogan "*Social Coding*". Github is not only storing git repos, but participants have profiles, a history, and other participants can interact with it.

Social features and/or a **social API** are **critical for mass adoption**.
- No social API, no virality.
- No virality, no quick mass adoption. Mostly no slow mass adoption either.
- See also the book *"The Cold Start Problem" by Andrew Chen*.

Some other blockchain storage solutions **just** provide an S3 API and that's it. It helps to get some adoption, but this naïve, non-social approach prevents mass adoption.

Bitoku will **socialize the distributed storage field** in a similar way as Github did for coding.

In order to get virality multiplied, we focus on:
- Interacting with **developers** (startups and established firms),
- Guide them to build **DeFi, Web3 and Metaverse** apps on top of Bitoku,
- Help **fully utilize** the **social API** for the app to get virality & fast adoption.

The future of distributed storage is social.

Welcome to the future.
Welcome to Bitoku.

Storage Technology

Both **Platinum and Founders Nodes** are validators. Their tasks are:

- ▷ Validate storage operations (CRUD, Create/Read/Update/Delete),
- ▷ Validate proper storage in storage nodes through periodic challenges,
- ▷ Provide signatures and proofs to interact with Solana,
- ▷ Read/write Solana accounts for interoperability.
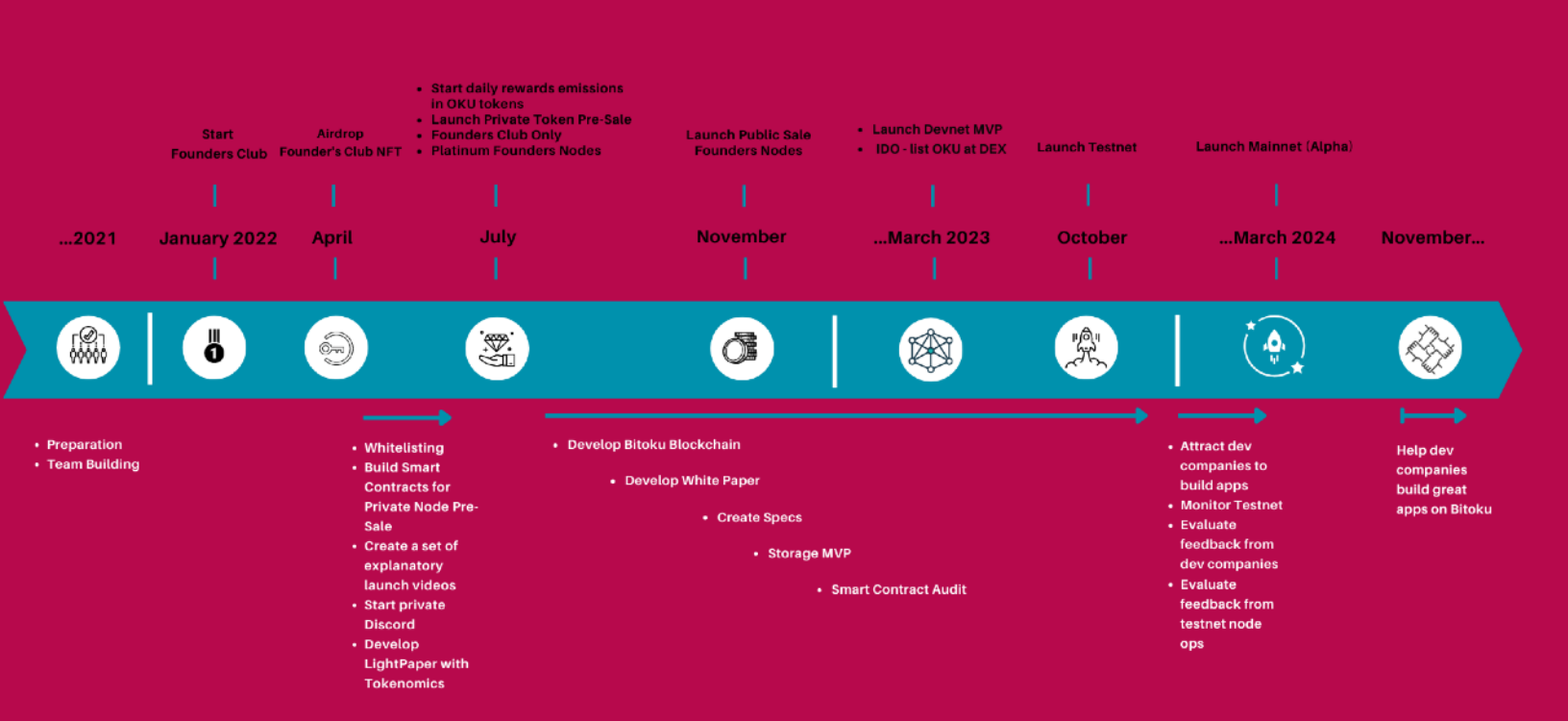
As a **Node Owner**, you can

- ▷ Earn OKU rewards from day 1, while we build the validator software,
- ▷ Use your OKU on okubin.com and later on the Bitoku chain,
- ▷ At launch, download and run the Bitoku validator software,
- ▷ Activate your validator by staking your node licenses OKUPT and OKUFND.
- ▷ Hardware & connectivity requirements will be announced closer to the launch.

Storage nodes can be run by anyone in a **permissionless** manner.

- ▷ Goal: Low hardware requirements, such as $35 Raspberry Pi
- ▷ Storage paid for in OKU, creating demand (good for Node owners)

Apps built on Bitoku will run on **user devices**. They access

- ▷ Solana as a "World CPU" and
- ▷ Bitoku as a "World SSD".

Start
Founders Club

Airdrop
Founder's Club NFT

- Start daily rewards emissions in OKU tokens
- Launch Private Token Pre-Sale
- Founders Club Only
- Platinum Founders Nodes

Launch Public Sale
Founders Nodes

- Launch Devnet MVP
- IDO - list OKU at DEX

Launch Testnet

Launch Mainnet (Alpha)

- Preparation
- Team Building

- Whitelisting
- Build Smart Contracts for Private Node Pre-Sale
- Create a set of explanatory launch videos
- Start private Discord
- Develop LightPaper with Tokenomics

- Develop Bitoku Blockchain
  - Develop White Paper
    - Create Specs
      - Storage MVP
        - Smart Contract Audit

- Attract dev companies to build apps
- Monitor Testnet
- Evaluate feedback from dev companies
- Evaluate feedback from testnet node ops

Help dev companies build great apps on Bitoku

Roadmap

Late Q2 2022

LightPaper · Private Sale of Platinum Nodes

Mid Q3 2022

Dev White Paper & Specs · Public Sale Founders Nodes · Use OKU on okubin

Q1 2023

Launch DevNet (Nodes operational for dev labs)

Q2 2023

Launch TestNet (Live nodes for performance testing)

Q4 2023

Launch MainNet-beta · Transition rewards to live storage

Launch File Sharing App, Backups App & S3-Compatible Storage Service

Bitoku Team

Bernie Blume
Founder and CEO

Chris Yoshida
Marketing

Emil Mendoza
Finance

Kaveen Laksitha
Development

Pubudu Gokarella
Development Manager

Jennifer Mendoza
Office Manager

Brad Kuhl
Community Management

In the process of hiring several additional key team members at our headquarters in San Francisco, CA.

Our Responsibility

Future generations rely on us to store and preserve the world's information. But that's not all. Posterity will also need to be sure that this information has not been tampered with, has been confirmed by a large number of digital witnesses, and has not been censored.

But even censorship-resistant archival is not enough. The world needs space for temporary, random-access storage as well.
All the world's IT infrastructure is being rebuilt on the blockchain right now. But this new world computer, as any computer, needs random access storage.

The current distributed storage solution cannot be nor become that storage layer that smart contract chains rely on for day-to-day, random access storage.

Without the missing storage layer, the world will miss out and cannot truly rebuild the IT infrastructure, leaving us in a world where we are forced to trust a few large corporations.

Our descendants need a world where stored information flows in a censorship-resistant way - the best way to accelerate progress for everyone.