



XANDEUM

# The Xandium LightPaper

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# Overview

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 its 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 development 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 behind expectations.

That's why Xandem 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.

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# Not Financial Advice

The information in this document is not intended as, and shall not be understood or construed as, financial advice.

Xandem or its representatives are not attorneys, accountants, or financial advisors, nor holding themselves out to be, and the information provided is not a substitute for financial advice from a professional who is aware of the facts and circumstances of your individual situation. Nothing provided in this document is, and shall not be understood or construed as, a recommendation to purchase any cryptocurrency coins or tokens. We have done our best to ensure that the information provided and the resources available for download are accurate and provide valuable information.

Regardless of anything to the contrary, nothing available in or through this document should be understood as a recommendation that you should not consult with a financial professional to address your particular information. Xandem expressly recommends that you seek advice from a professional.

Neither XAND tokens nor Xandem Nodes are investment vehicles, and nothing in this document should be construed as characterizing them as investment vehicles. Any mention of XAND tokens or Nodes in this document is exclusively limited to XAND tokens' or the Nodes' functional utility in the context of the Xandem protocol.

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# 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 Xandium to build storage-enabled apps, eventually touching billions of lives.

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# The 4 Xandeum Principles



## 1. Save The Environment



## 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 Xandeum, such as a Dropbox-like experience, enterprise backup & restore or an S3 compatible key-value store.



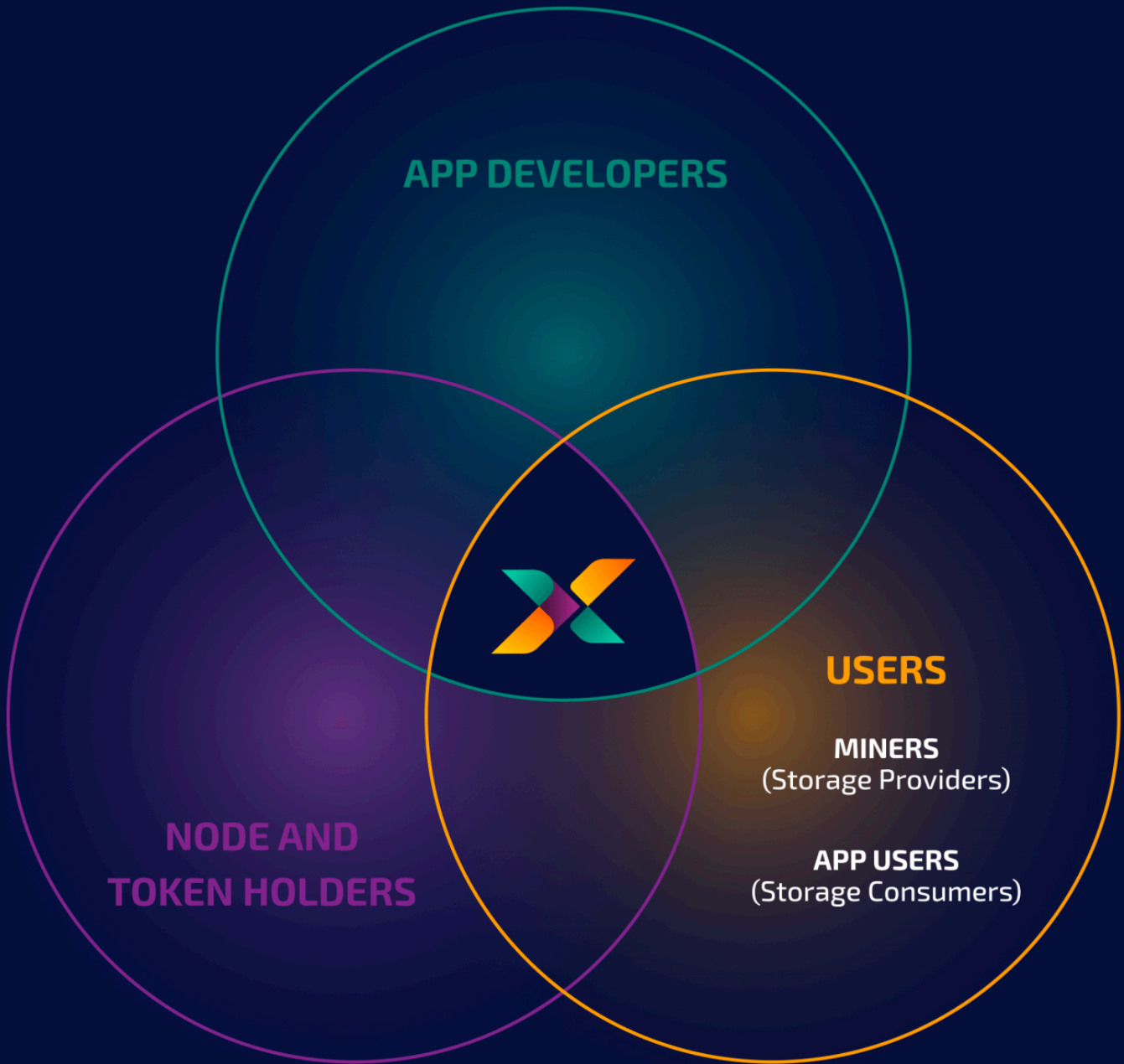
## 4. Works For All

Fast, scalable, low fees. Can use simple devices (Antsle and others) for providing storage space.

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# The Power of 3



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

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# Xandeum Preferred Club

Any great movement that makes a substantial positive impact on 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 Xandeum Preferred Club to symbolize you belong to that core group.

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

Benefits for Xandeum Preferred Club members:

- Special private channel in [Discord](#)
- Early access to anything new in the Xandeum universe
- Voice heard for the future direction of the movement
- Exclusive collectible NFTs just for Preferred
- Special merchandise branded Xandeum Preferred

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

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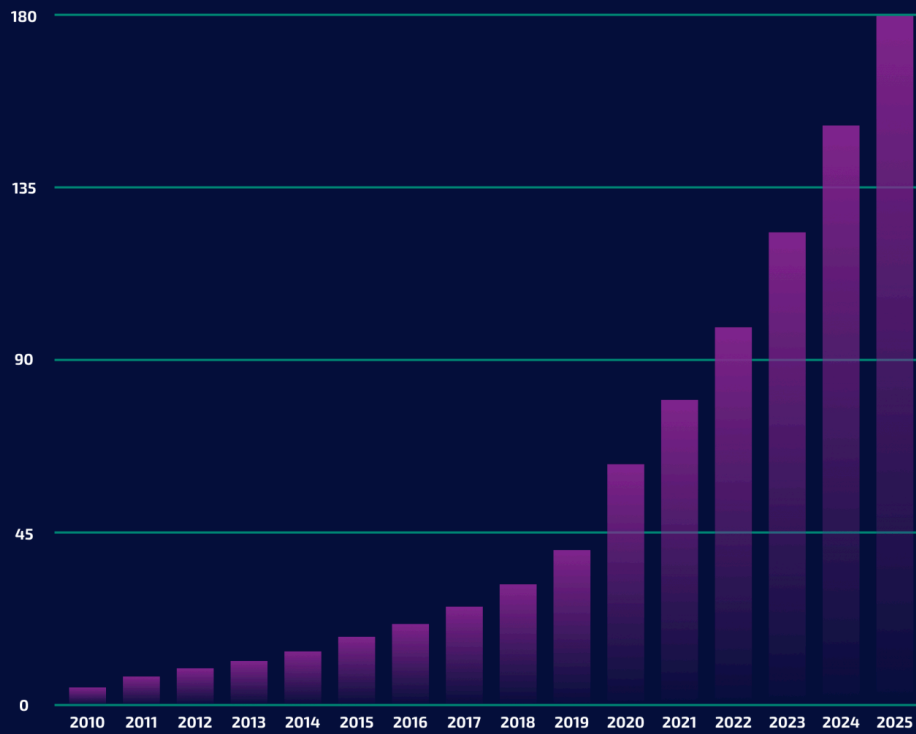


# Storage Quick Facts

## 181,000,000,000 TERABYTES

Exponential Growth of the World's Data

■ Zettabytes (Billion of Terabytes)



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.

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# Tokenomics



- When the Xandem Blockchain MainNet goes live in 2024, XAND will be the medium of exchange to pay for data storage.
- However, Nodes will emit daily rewards in the form of XAND tokens & can be used for storage services on xandbin.com (available shortly before XAND's launch on July 30, 2023) even before the Xandem chain goes live.
- Xandem will emit 1,000,000 XAND tokens per day, or 365,000,000 XAND per year plus reserve for affiliates at 10%.  
500,000 XAND/day – Xandem Labs (development and management)

500,000 XAND/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 XAND (including 10% affiliate reserve).

As MainNet goes live, the unconditional rewards will become contingent on storing data / validating transactions, but the 1,000,000 XAND 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 will count as 6 Founders Nodes. So the Platinum Nodes have 6x the rewards power compared to Founders Nodes.
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- Platinum Node maximum supply ever: 1,400
  - Founders Node maximum supply ever: 6,300
  - The first 200 Platinum nodes are reserved for Bitoku Labs (developer of the Xandeum chain) 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.
  - Xandeum 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).
  - All Bitoku Nodes, both Platinum and Founders, will automatically be recognized as Xandeum Nodes.
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# Xandium Nodes



What exactly am I buying?

When you purchase a Xandium Platinum Node or a Xandium Founders Node, you are securing a license to operate a Validator Node in the future Xandium 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 in the Xandium NodeStore smart contract and will start earning you XAND 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 Solana wallet. Note that storage provider 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.

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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 XAND 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 Xandem Validator software on individual computers that are connected to the Internet. Your physical validator node(s), enabled by the Platinum and Founders licenses you can purchase today, will be the backbone of the Xandem 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.

Stage 2 will start with a DevNet and then TestNet, which will not work on real XAND tokens. We expect to launch Mainnet-beta in 2024. 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 XAND 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 Xandem team, 100 as strategic reserve for future strategic partners) and 6,300 Founders Nodes.

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The Platinum nodes start at \$100 USD and increase by \$100 USD each time 100 Nodes are sold. The Founders nodes start at \$200 and increase by \$100 every 100 nodes sold up until 1,400 Founders nodes have sold. Starting from that point, the price will increase by \$500 for every 7 nodes sold. All Node owners receive an equal split per node of the allocated 1,000,000 XAND tokens each day. 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 XAND supply – even after 10 years – to never exceed the 4.015B XAND limit, and for the total net daily emissions to never exceed 1.1M (1M + 10%) XAND.

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# The DAO



DAO (道) is not only the natural order of the universe in East Asian religions but also a Decentralized Autonomous Organization that Xandem 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 XAND tokens.

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

This way (yes, 道 means “way”), you, the node owners, will govern the Xandem network – not banks or large corporations

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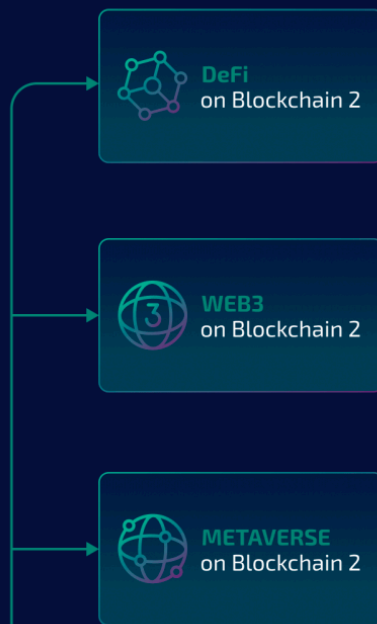
# Market & use Cases

## 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



### BLOCKCHAIN 3 WITH XANDEUM SOCIAL STORAGE LAYER



- Document uploads w/ expiration
- Encrypted & deletable
- Fast search & reports
- On-chain, trustless appraisals



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



- 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



### BLOCKCHAIN 1.0

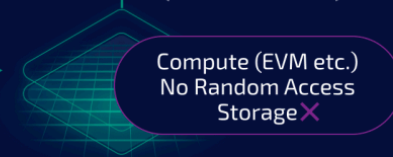
Sound Money, but Dumb



Evolved

### BLOCKCHAIN 2.0

Programmable (Smart contracts)



# 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 vary 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.

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# 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.

Xandem provides a social storage API, connecting Solana & the Xandem 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.
  - Xandem adds the missing storage layer to smart contract blockchains
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# 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.

Xandeum 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 Xandeum,
- 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 Xandeum.**

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# Storage Technology



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

- 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 XAND rewards from day 1, while we build the validator software,
- Use your XAND on XANDBin.com and later on the Xandeum chain,
- At launch, download and run the Xandeum validator software,
- Activate your validator by staking your node tokens XANDPT and XANDFND.
- 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 XAND, creating demand (good for Node owners)

Apps built on Xandeum will run on user devices. They access:

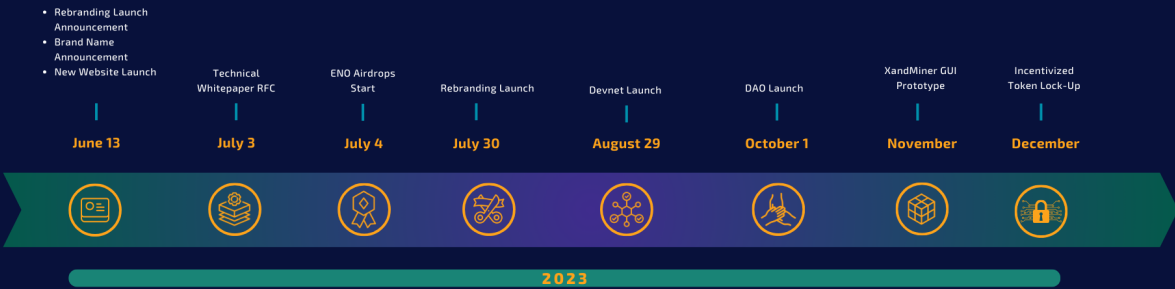
- Solana as a "World CPU" and
  - Xandeum as a "World SSD".
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# Road Map



- 2021... ✓ Done Preparation
- January 2022 ✓ Done Start Founders Club
- April 2022 ✓ Done Airdrop Founder's Club NFT
- ✓ Done Whitelisting
- ✓ Done Build Smart Contracts for Private Node Pre-Sale
- ✓ Done Create a set of explanatory launch videos
- ✓ Done Start private Discord
- ✓ Done Develop LightPaper with Tokenomics
- July 9, 2022 ✓ Done Private Sale
- July 2022 ✓ Done Start daily rewards emissions in OKU tokens
- ✓ Done Launch Private Token Pre-Sale
- ✓ Done Founders Club Only
- ✓ Done Platinum Founders Nodes
- Develop Xandeum Blockchain
- Create Specs
- Smart Contract Audit
- October 2022 ✓ Done Storage MVP (OKUbin)
- November 5, 2022 ✓ Done Launch Public Sale Founders Nodes



June 13, 2023

- Done Rebranding Launch Announcement
- Done Brand Name Announcement
- Done New Website Launch

July 3, 2023

- Done Technical Whitepaper RFC

July 4, 2023

- Done ENO Airdrops Start

July 30, 2023

- Done Rebranding Launch (Bitoku is now Xandium)

August 29, 2023

- Done Devnet Launch

October 2023

- Done DAO Launch

November 2023

- XandMiner GUI Prototype

December 2023

- Incentivized Token Lock-Up



January 2024

- Node and Token Scavenger Hunts
- Storage Provider Node Sales

February 2024

- Launch Storage Provider Integration into Devnet
- Xandipedia sedApp Prototype

March 2024

- Public Draft of Developer Docs

April 2024

- The first 3 Web3 Startups building on Xandium

July 2024

- Incentivized TestNet Launch

September 2024

- Mainnet Launch (Alpha)

October 2024

- 5 sedApps running on Xandium MainNet

November 2024

- MainNet Beta launch

2025

- Big players in Web3 are all building on Xandium

2026

- Majority of dApps are Xandium-based sedApps (Storage-Enabled dApps)

# 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.

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