

PiKniK—The Rising Tide That Lifts All Boats

PiKniK is a decentralized storage provider in North America that's serving enterprise clients while actively growing the Filecoin community.



The TL;DR on PiKniK

If you've ever wondered where all the data for the Hubble Space Telescope is stored, then you're about to get your answer. PiKniK is a decentralized storage provider on the Filecoin network, working with data sets from the likes of NASA and the USC Shoah Foundation to store humanity's most important information.

PiKniK is on a mission to support the Filecoin ecosystem while it expands and optimizes its own data storage services. The PiKniK ethos is to “do well by doing good”—as evidenced by the storage provider's founding of a training and mentorship program for new ecosystem participants.

PiKniK faces challenges just like any other young organization in a nascent industry, but also boasts many successes in its short history. Keep reading to learn everything you need to know about PiKniK.

What is PiKniK?

[PiKniK](#) is a decentralized storage provider with California roots. PiKniK operates using Filecoin, leveraging the Filecoin network to provide Web3 storage to enterprise clients.

Assets. PiKniK is headquartered in La Jolla, California, and operates data centers in San Diego, California, and Las Vegas, Nevada. PiKniK is co-located with the ScaleMatrix data center in San Diego and with the Switch data center complex in Las Vegas.

Geographies. PiKniK is U.S.-based, but the scope of its data storage activities is global. PiKniK stores replicas of data for clients worldwide, and is rapidly expanding its physical footprint. Other U.S. locations, Canada, and the United Kingdom are major targets for the storage provider's geographic expansion.

Industry verticals. As a decentralized storage provider, PiKNIK can store data for clients across sectors. The sectors with high data storage needs—like education, healthcare, and media—are prime focus areas for PiKNIK.

Storage capacity. PiKNIK’s raw storage capacity currently hovers around 40 pebibytes (PiBs). With expansion activities underway, the storage provider expects to achieve a total capacity of 60 PiBs by year-end 2022.

PiKNIK in the U.S. was among the first decentralized storage providers to onboard 1 PiB — or roughly 1,000,000 GB — of storage capacity to the Filecoin network. The storage provider boasts access bandwidth of up to 100 Gbps.

Funding. PiKNIK is a largely bootstrapped company that has completed a seed funding round. The company has accepted investment funding from friends and family, followed by minority seed investors. PiKNIK has also received some funding in the form of grants from [Protocol Labs](#), the development organization behind Filecoin.

Community involvement. PiKNIK stands out for co-creating the [Enterprise Storage Provider Accelerator \(ESPA\)](#), a seven-month training program for decentralized storage providers. PiKNIK is also a Filecoin notary, meaning that it audits and validates data to support specific Filecoin initiatives like [Filecoin Plus](#). Several PiKNIK founders also participated in the Filecoin MinerX Fellowship Program.

Carbon footprint. PiKNIK is committed to minimizing its environmental impact. The Filecoin storage provider purchases renewable energy credits to offset 100% of the carbon emissions from its data centers. PiKNIK is a signatory to the Crypto Climate Accord, formally pledging its commitment to net-zero carbon emissions. PiKNIK’s devotion to sustainable data storage earned the company recognition in a [2021 showcase](#) by Protocol Labs, the development organization behind Filecoin, and Energy Web.

Why does PiKNIK exist?

PiKNIK is on a mission to provide turnkey data storage solutions to enterprise clients. The decentralized storage provider understands that many organizations have exploding data storage needs, and want more agency in the data storage process. PiKNIK uses the Filecoin network because it employs a replication process across geographies, to store data in a way that is transparent to the client, reliable, and secure.

PiKNIK views the transition to Web3 as “already very material around the world” and yet still just beginning. Protocols like Filecoin that enable decentralized data storage “allow for both [storage providers and clients] to have more impact and management in the progression of” how data storage services evolve. PiKNIK views itself as a catalyst supporting the transition from Web2, which is centrally controlled, to the decentralized Web3.

What PiKNIK believes—data is the most valuable asset in the world and decentralization of the internet is inevitable. PiKNIK is meeting this colossal demand by aiming high and playing the role of storage *partner*, not just storage provider.

PiKNIK's services

PiKNIK may store archival data, but its scope of services makes it much more than just an archival storage company. PiKNIK aims to be a turnkey storage provider because the company views itself as a “Web2.5” organization—a.k.a., a company that enables Web2 enterprises to smoothly transition to Web3.

But what does being a turnkey storage provider really mean? Let's dig into the scope of services that PiKNIK provides:

- **Decentralized data storage:** PiKNIK stores data for enterprise clients directly, plus offers “storage-as-a-service” to storage providers wishing to rent decentralized storage space. PiKNIK's data storage service includes data replication upon client request.
- **Data encryption:** PiKNIK can encrypt data for clients upon request. PiKNIK uses public keys to encrypt data, and clients hold the private keys to their data to ensure that it remains secure.
- **Data digitization:** Clients with analogue data can use PiKNIK's data digitization service to convert data into a digital format. This service includes data troubleshooting and debugging as necessary.
- **Mining-as-a-service:** PiKNIK offers mining-as-a-service to organizations that have available storage capacity but no node on the Filecoin network. PiKNIK provides the necessary hardware and manages all technical aspects of operating a Filecoin node.

In addition to providing these services, PiKNIK is also a software development company. The storage provider creates applications to support data management and data ingestion from Web2 interfaces.

PiKNIK is further expanding to support additional features and services, including a “compute over data” layer and highly accessible storage. PiKNIK is also incorporating machine learning to better serve its enterprise storage clients.

How PiKNIK stores data

You may be wondering how exactly PiKNIK stores client data using the Filecoin network. Let's explore the process:

1. Client contracts with PiKNIK: The first step is for the client to contract with PiKNIK as they would with any other technology supplier. A contract typically specifies the amount of data to be stored, associated pricing, and whether replication is included. The contract may require PiKNIK to provide a proof of concept by initially storing only a small, duplicate dataset.

2. PiKNIK secures Filecoin incentives: PiKNIK works with the Filecoin ecosystem to enroll the client in any relevant Filecoin incentive programs, such as Filecoin Plus.

3. Client prepares and transfers data: With PiKNIK's support, the client prepares and ships data to PiKNIK. The data can be transmitted either online or offline, with offline alternatives including physical shipment of hard drives or a direct download by PiKNIK.

4. Data is ingested to Filecoin network: With the data received, PiKNIK uses its software application—called PiKNIK Basket—to ingest the data into the Filecoin network. Basket processes the data received into compressed archive (CAR) files that are no larger than 32 GB. PiKNIK's software can also encrypt the data upon client request.

5. Data is replicated: PiKNIK, based on client preferences, can replicate a dataset to be stored with other Filecoin storage providers. PiKNIK ensures that the replicated data adheres to any regulatory requirements that apply to the client's business.

6. Data is retrieved upon request: PiKNIK can retrieve data for clients at any time upon request. The retrieval process typically takes one business day.

PiKNIK uses an array of hardware and software to support its decentralized data storage operations. Here's a snapshot of some of PiKNIK's hardware and software currently in use:

- Seagate hardware for long-term data storage
- NVIDIA graphics processing units (GPUs) for complying with Filecoin's [proof-of-spacetime](#) requirements
- NVIDIA hardware for GPU proving
- Intel network cards
- Error-correcting RAM to increase data integrity
- [Lotus software](#) from Filecoin for reference implementation
- Ansible and Puppet software for software provisioning and configuration
- Grafana dashboard for data metrics visualization

A brief history of PiKNIK

PiKNIK was founded in October 2020 by Kevin Huynh and Patrick Yu. Kevin first learned about Web3 technologies as a hobbyist in his Harvard dorm room, and later as a venture capital investor and organizer of the annual Blockchain Week in San Francisco. Patrick, Kevin's brother-in-law and a software engineer at Wayfair, took a leap of faith and began working with Web3 technology late in 2020.

Before the company's inception, PiKNIK's founders evaluated other blockchains such as Storj and Arweave. The PiKNIK team ultimately chose Filecoin because it's by far the largest blockchain-enabled storage network, and PiKNIK's founders viewed the Filecoin roadmap as being very robust. PiKNIK from its inception has prioritized the needs and concerns of enterprise storage clients, and determined that joining the Filecoin network would be the best path forward.

Let's take a look at the biggest milestones in PiKNIK's brief history:

- **First pebibyte sealed:** The first major milestone in the company's history occurred in January 2021, when PiKNIK sealed its first pebibyte.

- **PiKNIK joins the MinerX Fellowship Program:** Also in January 2021, three members of the PiKNIK team were selected to participate in the [Filecoin MinerX Fellowship Program](#)—an elite program designed to bolster the Filecoin community and reward its most active members.
- **Data center presence established:** In February 2021, PiKNIK established its first data center presence, in San Diego, California. The storage provider expanded its existing compute cluster and storage network into a data center footprint—a crucial development for the company.
- **Data center presence expanded:** PiKNIK in April 2021 expanded into a second data center, also in San Diego. With the addition of a second location, PiKNIK gained the ability to offer true data redundancy.
- **PiKNIK secures seed capital:** PiKNIK secured \$4.3 million in seed funding in May 2021.
- **ESPA is born:** PiKNIK in October 2021 received a grant and formal approval from Protocol Labs to launch the Enterprise Storage Provider Accelerator program.
- **PiKNIK expands its geographic coverage:** In November 2021, PiKNIK expanded its data center footprint to Las Vegas, Nevada. This expansion allowed PiKNIK to begin storing its clients' data in multiple geographic locations.

Who is the PiKNIK team?

PiKNIK is led by Kevin Huynh and Patrick Yu, and brings together a group of more than 35 talented individuals. The company employs storage experts, business development professionals, marketers, sales staff, financial professionals, and software engineers. Members of the PiKNIK team hail from IBM, Cloudian, Western Digital, Google, Yelp, McKinsey, Deloitte, and other distinguished organizations.

Let's get to know PiKNIK's principal team members.



Kevin Huynh, Co-Founder & Chief Executive Officer

[Kevin Huynh](#) leads PiKNiK as the organization's co-founder and CEO. Prior to PiKNiK's formation, Kevin was a venture capital investor with Noris Capital, where he also co-founded the San Francisco Blockchain Week. Kevin began his career as a management consultant with L.E.K. Consulting, and holds a Doctor of Medicine degree from University of California San Diego. Kevin is a Harvard University graduate who majored in the life sciences.



Patrick Yu, Co-Founder & Chief Information Officer

[Patrick Yu](#) is a PiKNiK co-founder and the organization's CIO. Patrick joined PiKNiK from the furniture maker Wayfair, where he contributed as a software engineer. Patrick began his career

as an IT engineer for PaperFree Corporation, a content management solutions provider for enterprises. He too is a graduate of University of California San Diego.



Stuart Berman, Chief Technology Officer

[Stuart Berman](#) formally joined PiKNiK in October 2021 as the company's CTO, but first connected with PiKNiK's co-founders as a fellow participant in the Filecoin MinerX Fellowship Program. Stuart joined PiKNiK from Steelcase, where he contributed as an IT Security Architect and Innovation Fellow. Stuart began his career as a network engineer at IBM and brings more than 30 years of IT experience to PiKNiK.



Michael Fair, Chief Revenue Officer

[Michael Fair](#) joined PiKNiK in October 2021 as the organization's CRO. Michael previously

spent 20 years with the channel sales consulting company MarketRace, where he guided clients to develop and implement successful channel sales strategies. Michael has held several other roles focused on channel sales, and began his career in business development for a telecom company. Michael holds degrees in both finance and international business.



Ben Højsbo, Vice President of Research & Development

[Ben Højsbo](#) joined the PiKNiK executive team in January 2022 as the organization's VP of Research & Development, and previously served as an advisor to PiKNiK. Ben is a former management consultant with Deloitte, where he spent 12 years advising on technology innovations. Ben was previously a Captain in the Royal Danish Air Force, and is a graduate of Copenhagen Business School.



Melissa Chu, Head of Operations

[Melissa Chu](#) joined PiKNIK in August 2022 as the company's Head of Operations. Prior to joining PiKNIK, Melissa was the Chief Operating Officer for Purely Cloud, a cloud and cybersecurity solutions provider. Melissa began her career as a data analyst and actuarial analyst, and has experience as a professional cellist. Melissa's educational background includes degrees in mathematics and economics from University of California San Diego.

PiKNIK is supported by a robust team of advisors, including:

- **Joerg Roskowitz**, Director of Blockchain Technology for the leading semiconductor company AMD
- **Tim Peterson**, Senior Director of Market Development for the hardware maker Seagate
- **Yida Gao**, Managing General Partner of the blockchain-focused VC fund Shima Capital
- **Eliot Buchanan**, Founder and CEO of the business payment platform PlastiQ
- **Brian Balderston**, Director of Infrastructure for the San Diego Supercomputing Center

PiKNIK is an employee-owned company that strives to create a culture of collaboration. PiKNIK team members are excited about the hyper-growth of the decentralized storage sector, and are devoted to solving the many challenges of transitioning to Web3.

PiKNIK values knowledge sharing and maintaining a culture of full transparency with employees and clients. The PiKNIK management team cares about the welfare and prosperity of PiKNIK employees in addition to members of the broader Filecoin community.

Who uses PiKNIK?

PiKNIK stores data for clients across sectors, with a particular focus on industries including healthcare, education, and media.

One particular data storage client that stands out is the [USC Shoah Foundation](#), a nonprofit organization with a permanent home at the University of Southern California. The USC Shoah Foundation uses PiKNIK to store survivor testimonials, in a secure and decentralized way, of over 55,000 victims of genocide. The USC Shoah Foundation is committed to preserving our most important history through firsthand testimony, and benefits from the security afforded by decentralized storage technology. PiKNIK is among a group of Filecoin storage providers who replicate and store data for the Shoah Foundation.

Other PiKNIK clients include:

- **NASA Hubble Space Telescope:** The Hubble Space Telescope, a joint project between NASA and the European Space Agency, was launched into low-Earth orbit in 1990 and has remained operational since.
- **National Institutes of Health:** The National Institutes of Health is the primary agency of the U.S. government that's responsible for biomedical and public health research.

- **National Oceanic and Atmospheric Administration:** The National Oceanic and Atmospheric Administration is another U.S. government entity, responsible for forecasting the weather, monitoring oceanic and atmospheric conditions, and protecting marine species in U.S. waters.

PiKNiK stays squarely focused on serving enterprise-scale clients in data-intensive industries. The organization is pursuing System and Organization Controls (SOC2) certification to better serve enterprise customers.

How PiKNiK approaches marketing & sales

PiKNiK's approach to marketing and sales is closely linked to the organization's deep involvement with the Filecoin community. Participating actively in the community substantially raises the visibility of PiKNiK, while simultaneously supporting the success of many other stakeholders in the Filecoin network.

PiKNiK is pursuing content marketing and engagement marketing strategies. The organization uses multiple channels to distribute content and engage with stakeholders, prioritizing channels and methods that effectively foster community. These are some of the channels that PiKNiK leverages to engage with the community:

- [Twitter](#)
- [LinkedIn](#)
- [Filecoin Slack](#)
- [Filecoin GitHub](#)

PiKNiK also maintains an ESPA Slack channel, which is dedicated to bringing together participants of the Enterprise Storage Provider Accelerator program. The decentralized storage provider is working to refine its content marketing strategy to include more email marketing.

PiKNiK's approach to sales is evolving as the company grows. Initially the storage provider pursued a dual strategy that generated both direct and indirect sales, but is transitioning to focusing only on sales through channel partnerships. By working with a range of technology services brokers like Telarus, PiKNiK is well positioned to rapidly scale its sales efforts. PiKNiK's close involvement with the Filecoin community has also proven beneficial to its sales strategy by generating many warm leads and connections.

Operations at PiKNiK

How does PiKNiK operate? The data storage company is structured into several divisions, including:

- Operations
- Engineering
- Security
- Research and development

- Finance
- Marketing and sales
- Customer service

PiKniK is organized around a software platform that supports client relationship management, project management, asset management automations, customer service, and vendor management, among other features. This platform operationally supports each of PiKniK's service offerings.

Among the executive team, Kevin is responsible for raising capital and setting the overall strategy for PiKniK. Patrick, Stuart, and Ben each contribute to PiKniK's technology suite. Stuart is PiKniK's resident security expert, while Ben oversees the organization's R&D. Melissa directs operations with support from Patrick, and also assists with managing the entire PiKniK team. Michael is focused on sales and marketing, which includes event planning and production.

Challenges for PiKniK

PiKniK would be an anomaly in the business world if it faced no challenges. Let's take a look at the three biggest challenges for PiKniK and what the Filecoin storage provider is doing to overcome these obstacles.

Challenge #1—Expand data onboarding capacity

Onboarding data to the Filecoin network—also known as sealing—is a resource-intensive process that requires a high compute capacity. PiKniK aims to maximize the efficiency of its sealing process, and is challenged to increase its sealing capacity (typically measured in TiBs per day) in a cost-effective manner.

PiKniK is addressing this challenge by both expanding its own compute capacity and developing partnerships with other storage providers. By working with other ecosystem partners who may have excess compute capacity, PiKniK can better serve its clients while limiting the hardware investment that's directly required.

Challenge #2—Increase access to Filecoin for storage deal collateral

The Filecoin network requires storage providers to collateralize their storage deals with FIL tokens, obligating PiKniK to secure capital for the purchase of FIL. With the storage provider participating in the Filecoin Plus incentive program, PiKniK is challenged to secure substantial sums for deal collateral.

PiKniK is addressing this challenge by developing relationships with FIL lenders and investors interested in collateralizing Filecoin storage deals. PiKniK has developed and maintains relationships with Anchorage Digital and DARMA Capital, two organizations that lend Filecoin to storage providers.

Challenge #3—Develop software for a seamless client experience

With decentralized data storage still in its nascency, it's not shocking that the client experience still has room for improvement. PiKniK is challenged to develop a full suite of software solutions that make the client experience maximally efficient and enjoyable.

PiKniK is approaching this challenge by continuously expanding its software offerings, with particular emphasis on applications that improve the client experience. PiKniK is continuing to hire talented software developers with relevant skill sets, plus is continuously iterating on the software products that PiKniK has already developed.

PiKniK successes

PiKniK is a relatively young organization that can already boast about several milestones and accomplishments. Let's examine three of PiKniK's most important successes:

Success #1—Developed PiKniK Basket software

PiKniK Basket (or Basket for short) is the Filecoin storage provider's data ingestion and orchestration software. PiKniK developed this software tool in house to effectively manage the sealing and data management processes. Basket counts as a major win for the storage provider because it improves PiKniK's operations and also the client experience.

PiKniK is building on the success of Basket by further developing and refining the software's capabilities. PiKniK is also sharing the software tool freely with other storage providers, who can use and adapt Basket for their own purposes.

Success #2—Founded the Enterprise Storage Provider Accelerator program

A major success for PiKniK was its formation and continued leadership of the Enterprise Storage Provider Accelerator program. This intensive training program, which is sponsored by major technology companies such as Seagate, AMD, and Supermicro, features a one-week on-location bootcamp followed by at least six months of curriculum and mentorship. ESPA counts as a major win for PiKniK because it's a high-profile, successful initiative that is educating many new storage providers.

PiKniK is building on its initial success with ESPA by aggressively expanding the program. The Filecoin storage provider is adding at least 15-20 new ESPA participants every quarter. PiKniK in August 2022 received renewal funding from Protocol Labs to continue growing ESPA into 2023, and is expanding the accelerator program into select geographic markets around the world.

Success #3—Built strong pipeline of talent

With highly qualified technical talent frequently in short supply, one of PiKNIK's strengths is its ability to attract top performers. PiKNIK's strong reputation in the Filecoin community makes it a magnet employer, and the Filecoin storage provider boasts a full pipeline of interested candidates.

PiKNIK is building on its recruiting success by fostering a team culture that makes PiKNIK employees genuinely excited about their work. PiKNIK is also keeping its recruiting pipeline full by maintaining an "ecosystem-first" approach to creating value. By continuously adding value to the broader Filecoin ecosystem, PiKNIK is strategically positioning itself to continue to attract the best candidates.

What's ahead for PiKNIK?

PiKNIK is on an upward trajectory within the Filecoin ecosystem, and is uplifting many new storage providers in tandem. PiKNIK by year-end 2022 expects to onboard 60 PiBs of new data, and has a goal of increasing its demonstrated sealing capacity to more than 1 PiB/day. Achieving this sealing capacity goal would distinguish PiKNIK globally as being a storage provider with a leading data ingestion speed.

Looking ahead to 2023, PiKNIK plans to expand its data center presence into Europe. PiKNIK will also geographically expand the ESPA program, and plans to design different versions of the program to suit storage providers' varying needs.

In the medium-to-long term, PiKNIK is aiming to grow into a full-service storage provider that leverages the entire Web3 technology stack. PiKNIK over time expects to add extensive compute-over-data capabilities and storage tiers that are warm and hot.

PiKNIK anticipates further growing its leadership position within the Filecoin community, in part by creating and distributing new software applications for collective benefit. PiKNIK is committed to its own success as a for-profit enterprise, but also understands that its prosperity is closely linked to that of the broader Filecoin community.









