VPSTTT GROUP JOINT STOCK COMPANY

CLOUD S3 STORAGE



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WHAT IS S3 STORAGE?

Amazon Simple Storage Service (S3) is a scalable storage service built on object storage technology. It delivers high durability, availability and performance. Data can be accessed from anywhere on the Internet using the Amazon Console and the powerful S3 API.



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ARCHITECTURE OF CLOUD S3 STORAGE

- 4-node server cluster (NVMe/HDD) running in parallel.
- Tolerates 2 simultaneous node failures without affecting data.
- Data is encrypted in two layers (TLS/SSL & internal encryption).
- Data is auto-sharded and replicated into multiple parts:
  + Primary data part.
  + Redundancy part.
- Objects are stored in Buckets.



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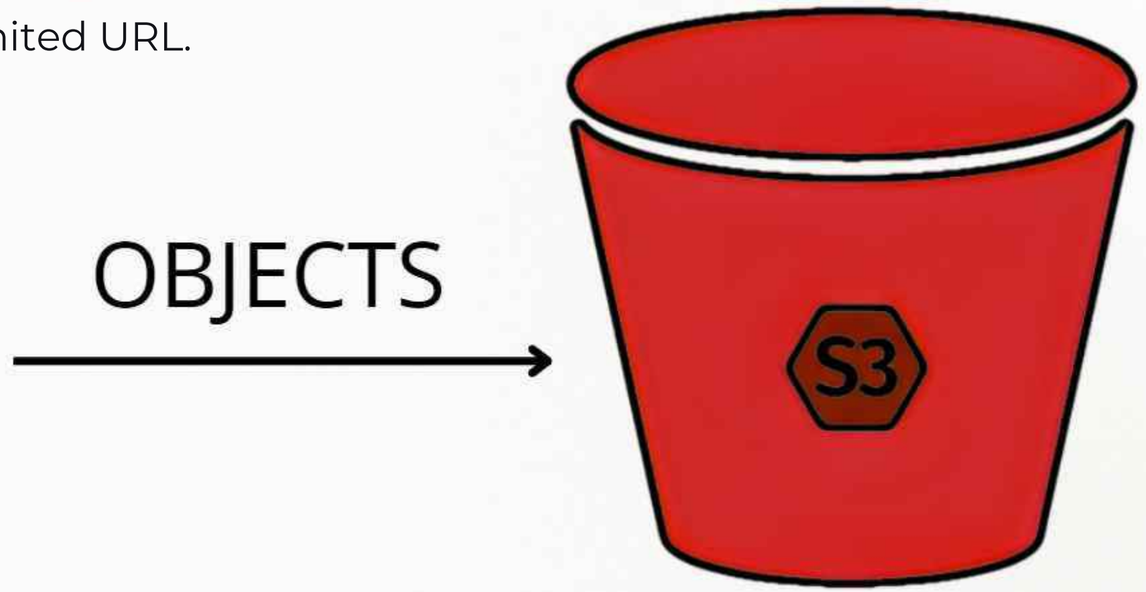
BUCKETS S3 STORAGE

- Buckets are the main storage containers for objects.
- Each bucket must have a "globally unique name" across all of AWS.
- Unlimited storage capacity.
- 1 bucket per account.
- With Amazon S3 buckets:
  + Serve content to customers.
  + Share data with EC2.



OBJECTS

- Objects are static files that contain metadata.
- All objects are private by default.
- Once an object is in a bucket, you can open, download and move it.
- Objects can:
  + Be as small as 0 bytes and as large as 5TB.
  + Be made public via a time-limited URL.

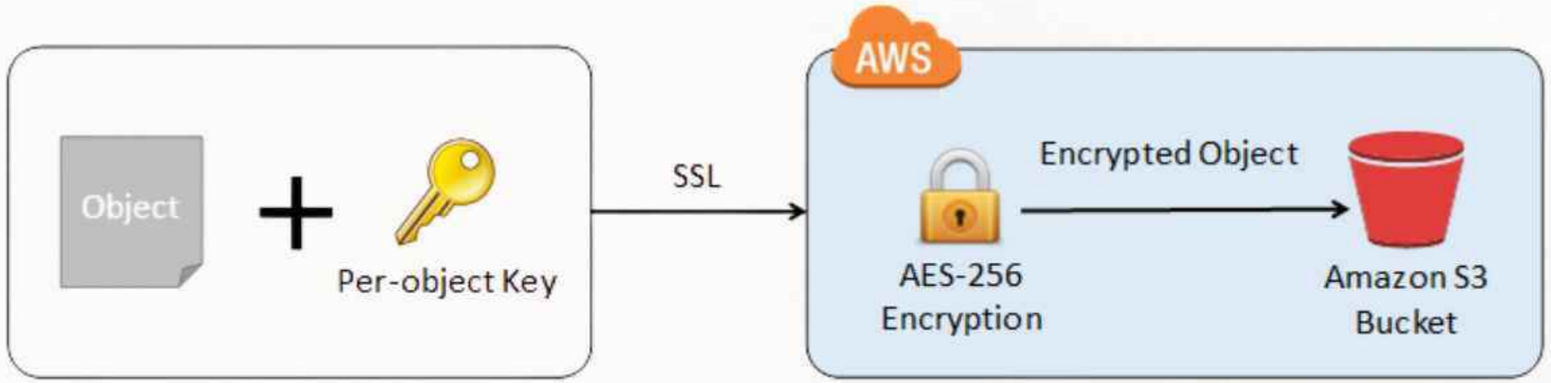


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OBJECT KEYS

- An object key (or key name) is the unique identifier of an object in a bucket. Every object in a bucket has exactly one key.

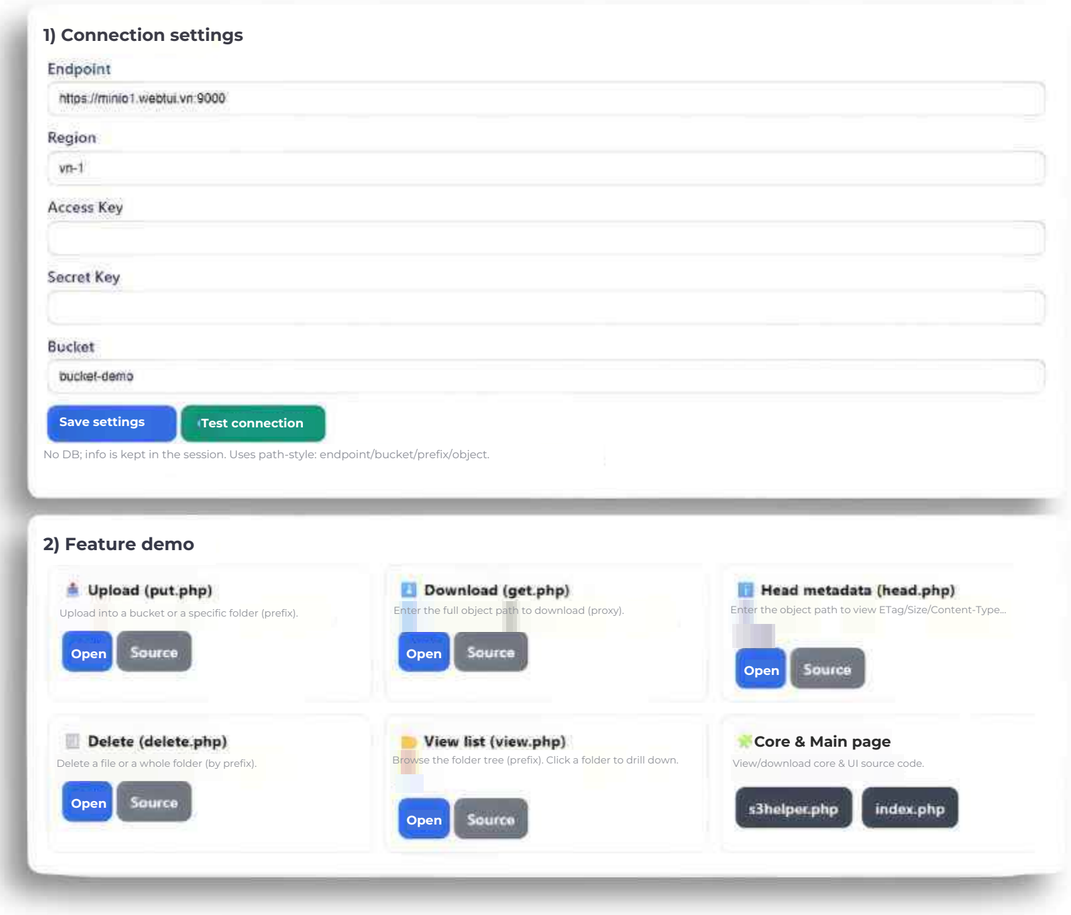
- S3 acts as a basic data map between "bucket + key + version" and the object itself.



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S3-STANDARD ENDPOINT & API COMPATIBILITY

- **Console (UI):** https://minio1.webtui.vn:9001
- **API Endpoint:** https://minio1.webtui.vn:9000
- **Region:** vn-1
- **Access Key:** Your username, e.g. vpsttt
- **Secret Key:** Your account login password
- **Bucket:** Bucket name shown after login, e.g. bucket-vpsttt



Web interface: docs.minio.webtui.vn

VPSTTT DELIVERS THE STORAGE S3 SERVICE TO HELP YOU:

1

Secure, durable data storage with international S3 standards.

2

Flexible capacity scaling on demand.

3

Lower costs than traditional infrastructure.

4

24/7 support from an expert technical team.



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TECHNICAL SPECIFICATIONS

OF THE STORAGE S3 SERVICE

A high-speed, secure Object Storage solution compatible with Amazon S3 and Cloudflare R2.

Ideal for backups, large data storage, media streaming, AI/ML datasets and many business needs.

Unlimited capacity

Network speed 100 Gbps

Unlimited bandwidth

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KEY HIGHLIGHTS OF CLOUD STORAGE S3

SECURE - RELIABLE



1. BUILT-IN SSL AND TLS

Highlights:

- The S3 Strong system uses Erasure Coding (EC) in an M+2 configuration: data is split into multiple blocks (M) plus 2 parity blocks.
- This keeps the system stable even if 2 storage nodes fail at the same time – no data loss, no access interruption.

Practical benefits:

- Data safety far beyond traditional RAID, with storage efficiency up to 3x higher than conventional solutions.
- Self-healing: when a node fails, the system automatically rebuilds missing blocks from the remaining parts without manual intervention.

Technologies used:

- Supports DV, OV, EV validation and wildcard certificates.



2. TOTAL DISK SPEED

Highlights:

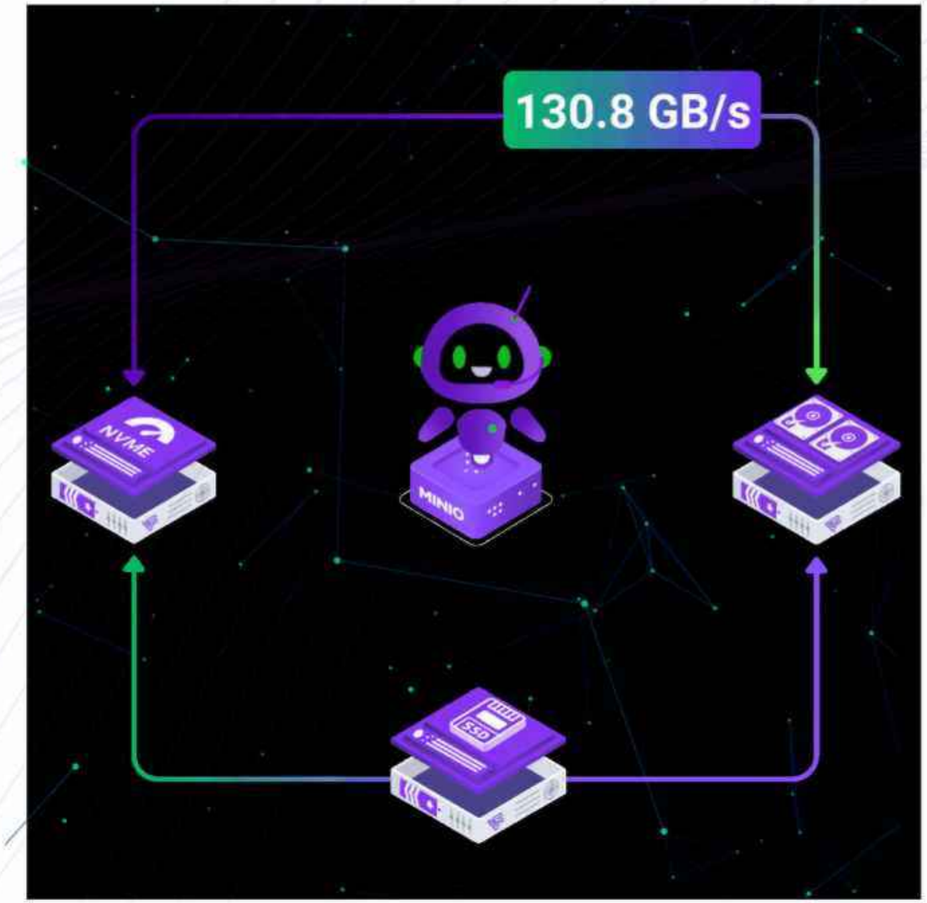
- Read/write speeds up to ~130.8 GB/s thanks to a cluster of many NVMe and HDD drives working in parallel.
- Not limited to a single drive: the combined power of the whole system scales speed linearly as you expand.

Practical benefits:

- Low latency, near-instant response for real-time services.
- Shorter backup, sync and data recovery times.

Technologies used:

- Multi-tier caching: NVMe for hot data, HDD for cold data.
- Continuous performance monitoring and access path optimization.



3. TOTAL CAPACITY

Highlights:

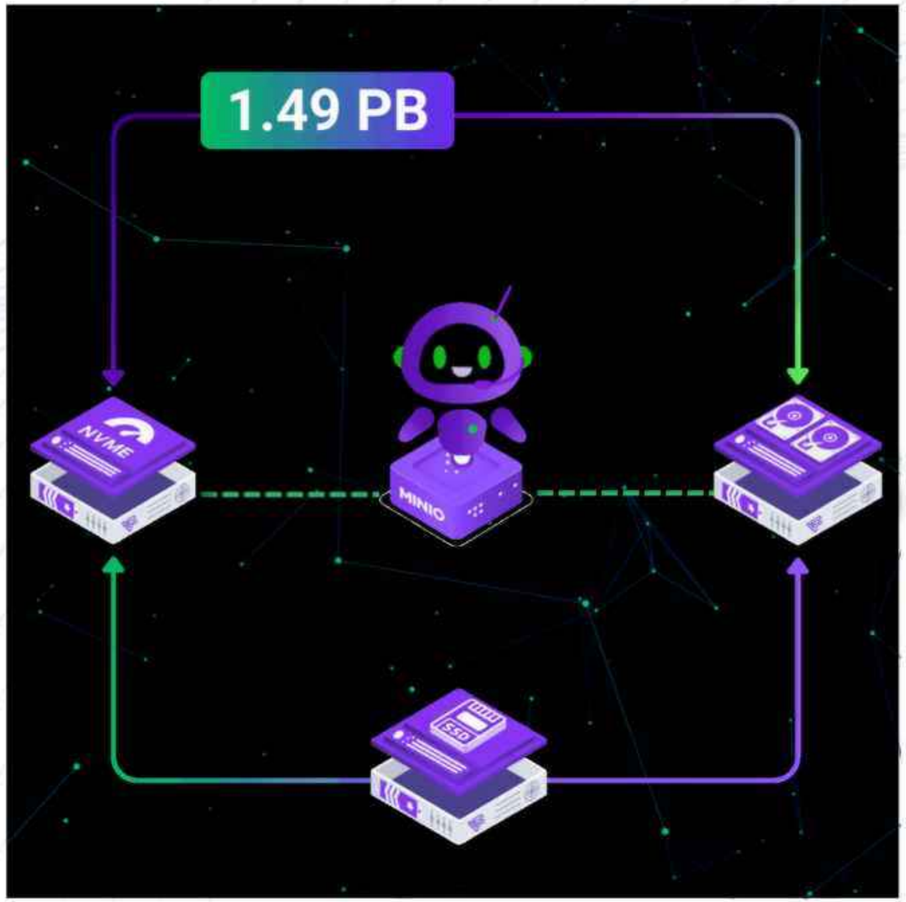
- Nearly 1.5 petabytes of storage – equivalent to billions of files.
- Supports data tiering to save costs and optimize speed.
- Meets large-scale, long-term business needs.

Practical benefits:

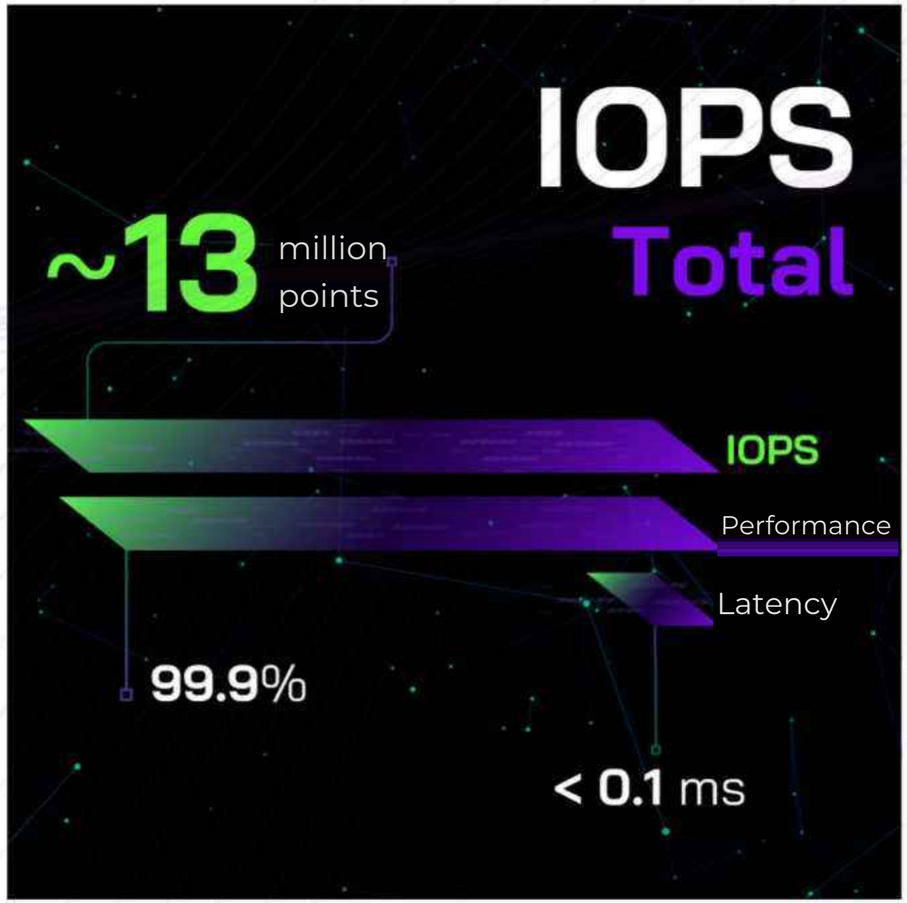
- Keeps data long-term, safe and easy to access.
- Ideal for systems that need many backups and versions.

Technologies used:

- Compression and deduplication reduce capacity usage.
- AES-256 encryption, KMS key management.



4. TOTAL IOPS



Highlights:

- Handles up to 13 million read/write operations per second – big data center level.
- Even load distribution, less congestion, optimized for many parallel tasks.

Practical benefits:

- Ideal for online transactions, finance, SaaS and e-commerce.
- Keeps the system stable even during sudden load spikes.

Technologies used:

- Real-time IOPS monitoring with automatic load rebalancing.
- Integrated load balancing for many parallel services.

5. HIGH BANDWIDTH

Highlights:

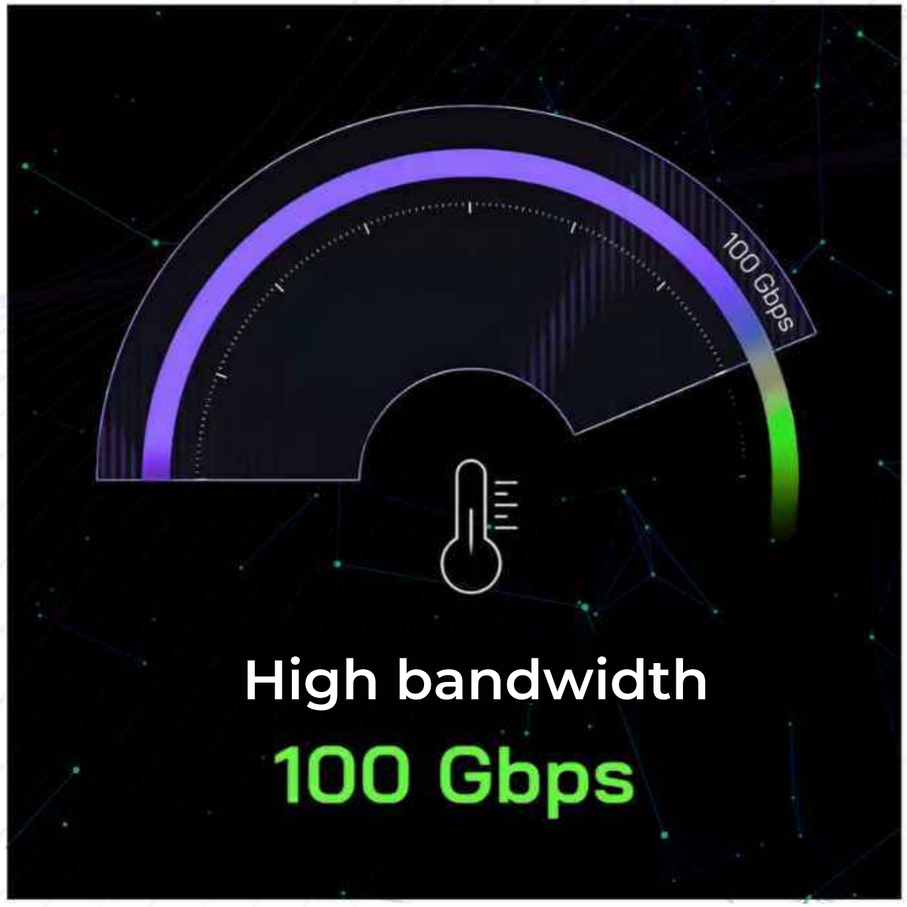
- Stable data transfer with less congestion and lower latency.
- Supports many cloud and hybrid services.
- Meets real-time data transfer requirements.

Practical benefits:

- Fast streaming, CDN and large-volume backups.
- Maintains performance when syncing data across regions.

Technologies used:

- DDoS firewall and advanced security.
- Traffic monitoring, automatic resource allocation.



6. FULL API

Highlights:

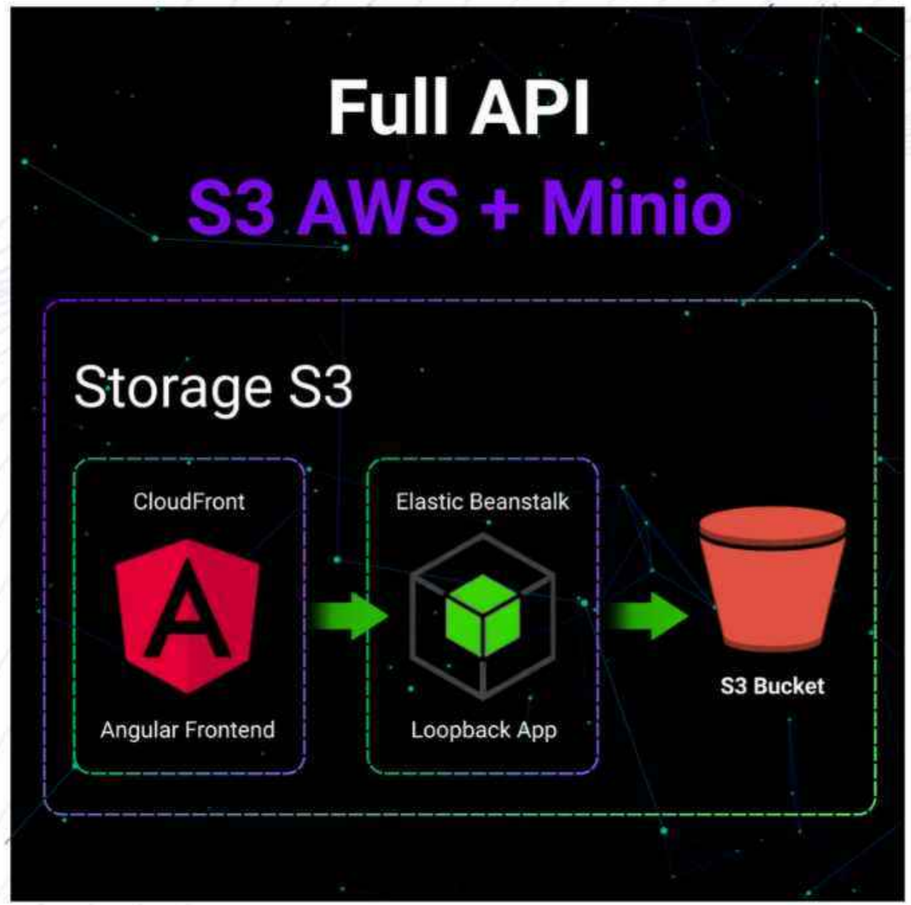
- S3 interface, compatible with AWS and MinIO.
- Centralized, scalable and flexible data management.
- Easy integration with applications and web services.

Practical benefits:

- Easy bucket, versioning and lifecycle management.
- Saves time and data management costs.

Technologies used:

- Multi-language API support, rich SDKs.
- Data encryption in transit and at rest.
- Fine-grained IAM permissions, full audit logs.



7. UPTIME

Highlights:

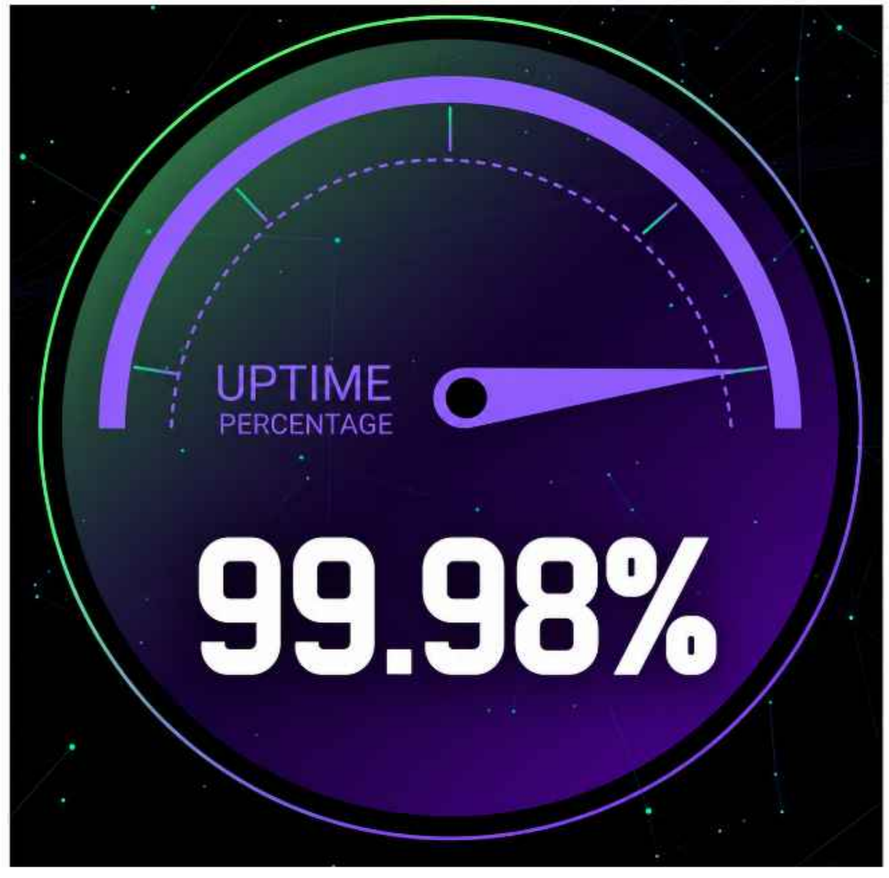
- Continuous operation, downtime < 1h/year.
- Multi-layer redundancy: power, network, storage.
- Stable service even when incidents occur.

Practical benefits:

- Builds trust, reduces the risk of disruption.
- Keeps business processes unaffected.

Technologies used:

- 24/7 monitoring, incident alerts.
- Continuous system checks to detect errors early.
- Multi-AZ, automatic failover.



8. DATA SAFETY

Highlights:

- Data is distributed across multiple server nodes and drives.
- The system keeps running when a server or some drives fail.
- Redundancy reduces the risk of data loss and access disruption.

Practical benefits:

- Meets legal requirements and protects customers.
- Boosts business trust and reputation.

Technologies used:

- Full audit logs to track changes.
- Fine-grained IAM access control.



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COMPARING 3 STORAGE MODELS
OBJECT STORAGE – FILE STORAGE – BLOCK STORAGE

Criteria	Object Storage	File Storage	Block Storage
Data structure	Flat, non-hierarchical namespace	Directory tree (parent – child)	Equal-sized data blocks
Access method	Via API (HTTP/S) with GET, PUT, DELETE. Direct access to objects	Via network protocols such as NFS, SMB/CIFS. Must be mounted in the OS	Mounted as a local drive (e.g. C:, /dev/sda)
Metadata	Rich, unlimited customization	Limited (file name, size, created/modified dates)	No metadata, block data only
Scalability	Virtually unlimited (Petabytes, Exabytes), scalable resources	Limited by the file system	Limited by volume size

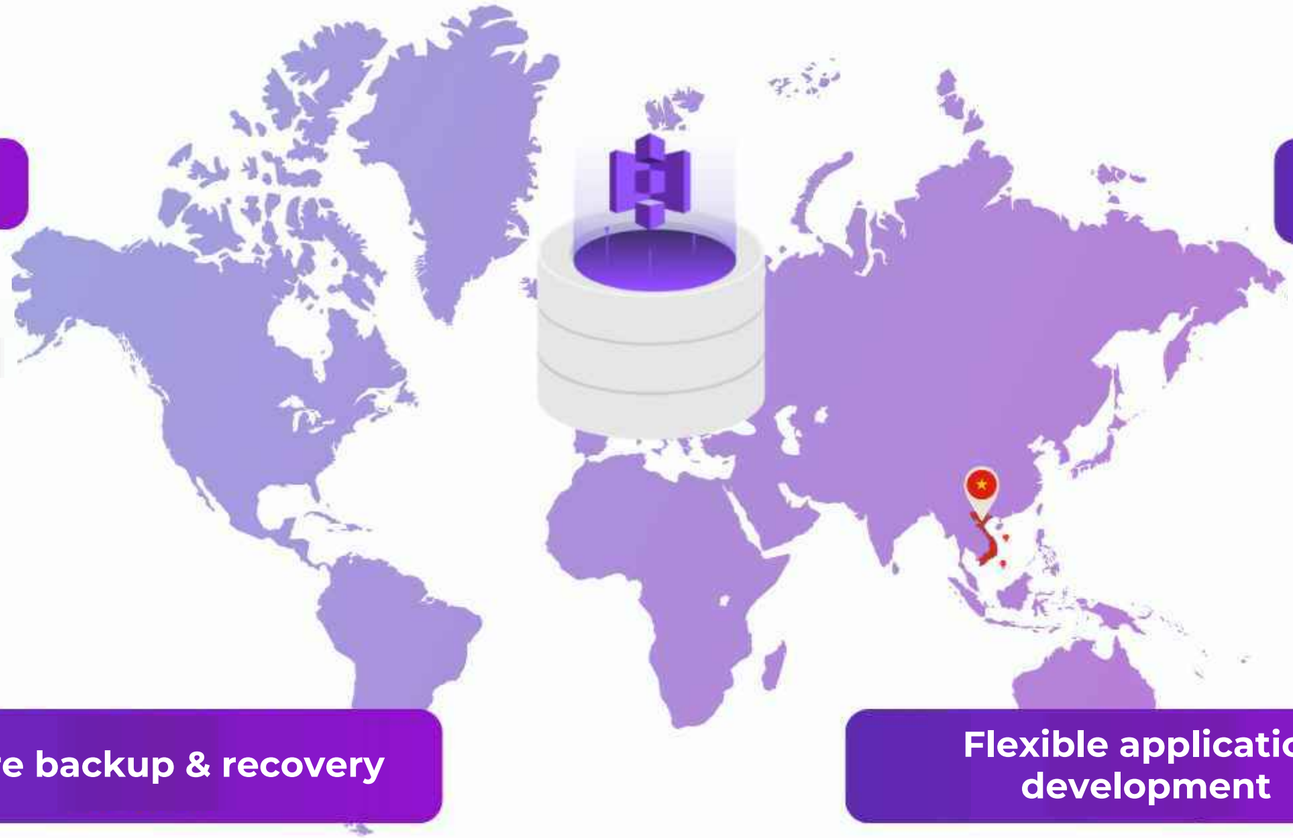
COMPARING 3 STORAGE MODELS
OBJECT STORAGE – FILE STORAGE – BLOCK STORAGE

Criteria	Object Storage	File Storage	Block Storage
Performance	Optimized for high throughput, ideal for large data	Good for accessing and processing a small number of files	Ultra-low latency, ideal for transactions and databases
Use cases	Big Data, Media, Backup, Cloud-native	Internal network file sharing, CMS	Operating systems, databases (Database)
Strengths	Low cost, unlimited scaling, flexible	Easy to use, familiar	Extremely high IOPS, low latency



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WHEN SHOULD YOU CHOOSE S3 OBJECT STORAGE?



Unlimited storage

- Scale storage to manage terabytes of unstructured data such as images, videos, system logs and backup files.

Faster access in Vietnam

- A smoother experience than ever: websites, apps and streaming get a performance boost from servers located in Vietnam.

Secure backup & recovery

- A reliable S3 endpoint to back up servers and databases securely at the best cost.

Flexible application development

- Flexible scaling for terabytes of unstructured data such as images, videos, system logs and backup files.

REAL-WORLD USES
S3 OBJECT STORAGE

1. Storage platform for workflow automation & n8n



Seamlessly integrate S3 Object Storage into automation workflows with n8n, Zapier or Integromat to automatically store and retrieve data such as reports, CSV files or images.



2. Media Storage & WordPress Offload

Store millions of high-quality media files and pair them with a CDN to deliver content globally at outstanding speed – ideal for news sites, e-learning apps and streaming platforms.

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REAL-WORLD USES
S3 OBJECT STORAGE

3. Backup & Recovery



Make Object Storage a safe, cost-effective destination for backing up all your critical data – from websites, databases and cPanel to physical servers. With reasonable cost, high durability and versioning, it is the ideal way to protect digital assets from every risk, including ransomware.



4. Big Data Warehouse & Data Lake

Unlimited storage for raw data from any source – server logs, IoT or user data – as the foundation for analytics, Machine Learning and AI applications.

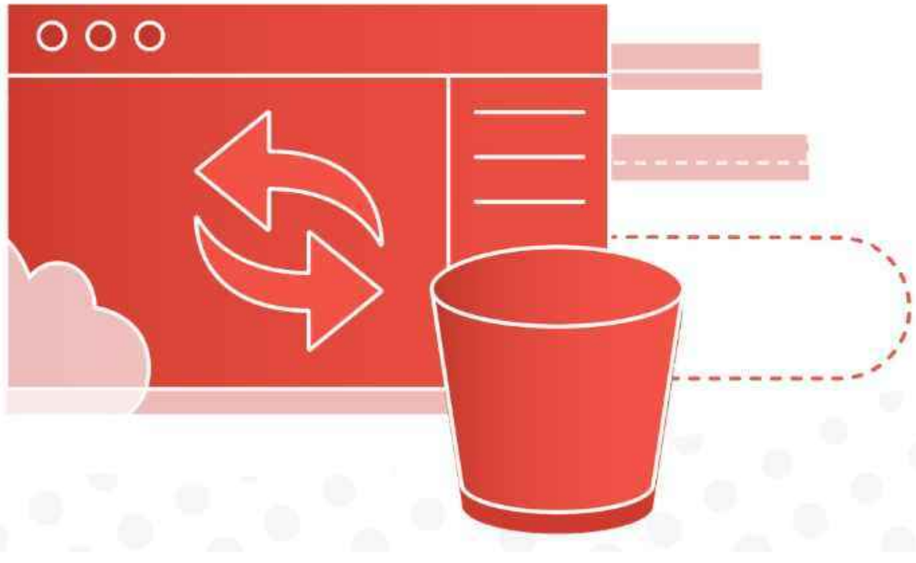
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REAL-WORLD USES
S3 OBJECT STORAGE

5. Internal document storage & sharing drive



An optimized storage platform for modern applications built on Cloud-Native and Microservices architectures.
With full API access (S3-Compatible), Object Storage delivers flexible storage and easy system scaling.



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APPLICATIONS COMPATIBLE WITH S3 OBJECT STORAGE

S3 Browser

Cyberduck

VELERO

AWS CLI

Nextcloud

WHY TRUST
VPSTTT'S CLOUD S3 STORAGE

7 YEARS +

Experience

12,000 +

Customers

12 +

Development Partners

1,000 +

Successful Projects

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VPSTTT FIREWALL ANTI-DDOS KEY FEATURES



International blocking

International block/unblock: VPSTTT lets customers block and unblock IPs anytime, anywhere.

Auto-detect and block DDoS

Detects and blocks DDoS attacks at the first sign of an attack.

Comprehensive connection monitoring

Lets network administrators monitor network activity.

24/7 technical support

VPSTTT helps you tailor the firewall to your needs and respond quickly to new attack methods.

ARBOR APS - DEDICATED DDOS PROTECTION AT VPSTTT

WHAT IS ARBOR APS?

- Hardware DDoS appliance developed by Arbor Networks
- Deployed directly at the network infrastructure edge
- Built-in real-time detection, automatic attack traffic filtering



KEY FEATURES

- Realtime DDoS detection (under 1 second)
- L3/L4/L7 traffic filtering
- Behavior analysis, machine learning
- ASN blocking, geo-blocking, BGP blackhole support
- Intuitive traffic monitoring dashboard, detailed logs

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THANK YOU FOR YOUR INTEREST IN VPSTTT'S CLOUD VPS SERVICES



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