

S3 Optimization with Varnish Enterprise

Enhance performance and reduce costs with an advanced caching solution tailored for Amazon S3.

Managing cloud storage costs while maintaining performance is crucial for businesses using Amazon S3 for distributed media workflows. As data grows exponentially, S3 provides a secure, reliable, and scalable solution for storing large volumes of information. However, challenges arise when retrieving this data. Fetching data from S3 can quickly become expensive as traffic scales up. If cloud storage is distantly located, accessing data can take too long and fail to meet business and customer demands.

Solving Enterprise Object Storage Challenges

Reduce costs for object access and data transfer by combining requests and delivering data directly from cache.

Improve data delivery speeds by caching frequently accessed data closer to users, reducing latency.

The Varnish Solution

Varnish Enterprise is a robust solution for preserving the benefits of cloud storage while solving cost, efficiency and performance issues. Varnish caches a copy of commonly requested S3 objects in specific locations where they are frequently requested. As a software-defined caching layer, Varnish Enterprise is platform-agnostic and can be deployed wherever data is accessed.

By caching data near end users, it significantly reduces transfer costs for object delivery and API calls, as data is delivered from the local Varnish node instead of the storage backend. Placing Varnish cache nodes near data usage points also reduces the need for costly inter-region or multi-cloud data transfers. This also enhances data delivery speeds, ensuring a low-latency, seamless user experience. The solution also supports other storage providers that implement the S3 API. Varnish Enterprise has enabled businesses to realize:

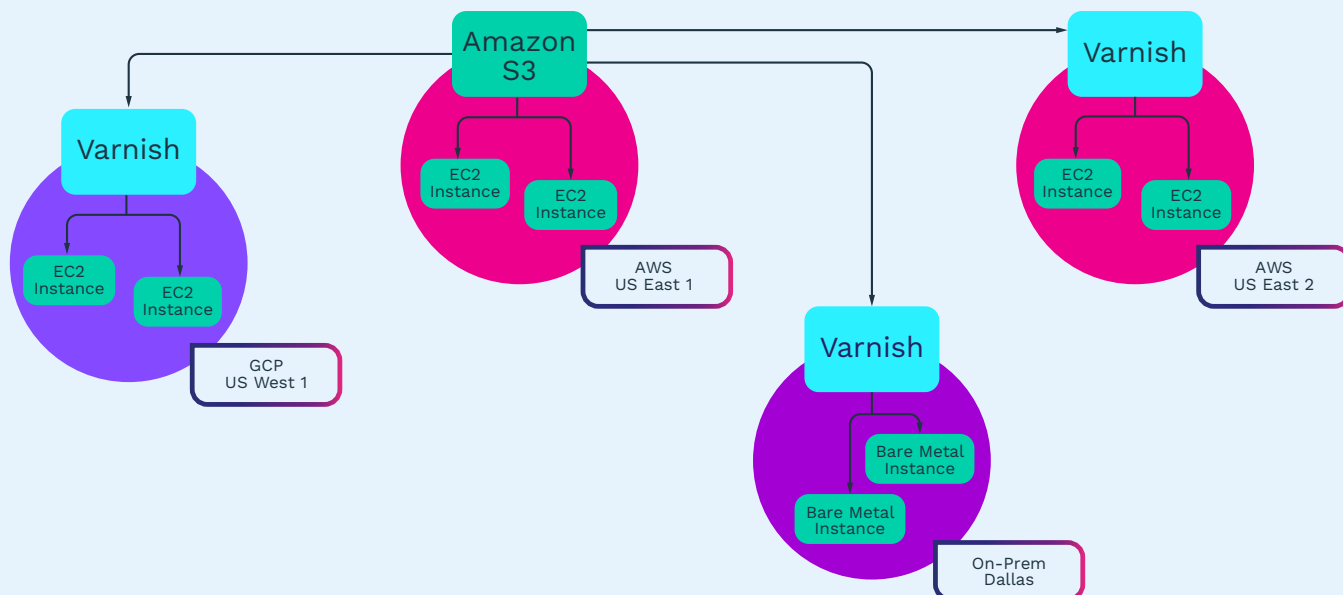
Lowered latency for digital delivery processes by

80%

Reduced cloud fees by

93%

Hours of developer time saved daily with easier purge and configuration



Features

Advanced Cache Controls. Fine-tune cache policies to maximize efficiency

Seamless Integration. Easy to deploy without significantly changing existing infrastructure.

Fast Implementation. Facilitate deployment using automation tools like Ansible, Terraform, Docker, Kubernetes.

Purge and Revalidate. Quickly update cached data when changes occur in S3, while maintaining cache performance.

Rate Limiting. Control the rate of incoming traffic, ensuring consistent performance.

Data Compression. Compresses data during transfer to minimize bandwidth usage.

Dynamic backends. DNS resolution across S3 endpoints with multiple IP addresses.

Clustering. Load balancing and failover with clustered configurations, improving reliability.

Observability. Detailed logging and metrics for monitoring and analyzing performance.

Authorization. Access to protected S3 buckets with native support for AWS' HMAC-based "AWS Signature Version 4" authorization.

About Varnish Software

Varnish Software is a global leader in high-performance, scalable caching and content delivery solutions. Trusted by top streaming services and major enterprises, Varnish accelerates and optimizes the delivery of digital content, APIs, and applications. With customizable software solutions designed to enhance performance, reduce costs, and improve user experience, Varnish empowers businesses to efficiently manage and deliver content across web, video, and cloud platforms.