Medianova's object storage's role in increasing ModaCruz' data transfer speed and decreasing its operational costs
How Medianova supported ModaCruz increase its data transfer speed and decrease operation costs

ModaCruz is a leading e-commerce marketplace bringing private buyers and sellers together. The company are primarily a fashion platform, where any user are able to buy and sell unworn or second-hand clothing, accessories, footwear, and more.

People simply create accounts and upload images of their items. In fact, ModaCruz encourages its users to upload as many high-resolution photos of their items as possible. This results in tens of thousands of images uploaded daily by users and this volume is growing fast.

In a short period of time, ModaCruz has grown to:

- 3 Million active users
- 6,000+ brands in 182 categories
- 7 Million monthly visitors
Challenge

The ModaCruz technical team was using a global cloud storage platform as their origin storage. However, this service was located far from their users and this was creating performance problems with increasing daily high-resolution image uploads. On top of that, ModaCruz needed to use a regional CDN for faster delivery and closer footprint to its users. Using a CDN other than Cloudfront created another problem, namely expensive data out charges which were above ModaCruz budget.

The ModaCruz technical team searched for a better solution but the product was heavily integrated into the current cloud-based storage platform’s APIs and the engineering cost of removing APIs from the code was extensive. On top of that, moving the existing data without losing any files and impacting millions of users was another challenge.

In other words, due to the enormous amounts of image data created by its users, ModaCruz’s image archives were growing rapidly and facing soaring data storage and data out costs.
Solution

ModaCruz’s team turned to Medianova for its fast object storage service, Stook, which was integrated with Medianova’s Agile patent-pending Secure CDN.

Medianova’s object storage service Stook is the perfect solution for this type of problem. Instead of using traditional storage methods (where files are defined and stored in file hierarchies), **Stook defines and manages data as ‘objects’, each with its own metadata and GUID (Globally Unique Identifier)**.

Medianova’s migration team started the process by getting the login credentials of ModaCruz’s existing solution and run a data migration procedure. With this procedure, Medianova ensured **millions of data files were copied seamlessly without any data loss, while the system was still live**.

Another feature that made ModaCruz’s life easier was that Stook used the same API set with the current solution. This meant no change on the code base for migration.
The Stook platform optimized ModaCruz’s traffic loads and distributed it amongst servers to mitigate bottlenecks and eliminate chokepoints during data delivery. In parallel, Medianova CDN servers cached data according to traffic load and user demand. Thanks to its GPU powered smart software and machine learning ability, Medianova also provided an image compression and image data delivery for ModaCruz, allowing its users to both send and receive immense amounts of high-resolution images. For this matter, HTTP/2 delivery and Brotli compression were used, which was up to 26% more efficient than comparable data compression methods.

Once the transfer of data was finished, the ModaCruz team changed the origin storage service URL with the Stook URL and updated the login credentials.

The migration was painless and instant.
Results

Medianova supported ModaCruz to achieve **60MB of data transfer capability in a second**. The hit cache ratio has been increased and data out costs went down to zero.

With the restructuring of data storage and CDN infrastructure, bottlenecks in the data transmission were eliminated and users were able to upload images faster without errors or slowdowns. **To illustrate, 30% faster uploads and downloads** were achieved.

Equally important, overall speed and performance were increased, which contributes to better SEO performance. In other words, **content delivery speed increased by 50%** with Medianova’s image compression and delivery methods. Last but not least, **cloud storage costs of ModaCruz dropped by 80%** thanks to Stook.

As seen, all of these improvements not only resulted in better performance but also yielded lower costs.
It’s impossible to deny the contributions of Stook for many reasons including fast retrieval of our valuable image assets, better performance, low price and fast integration. This is priceless for companies looking for better, faster, cheaper storage for their data and media management needs.