

MailerLite moves 100 million files to the cloud



With NetApp® Cloud Volumes Service for Google Cloud, MailerLite enjoys fast, scalable, and secure data services to help its own and customers' business growth.

Files make the MailerLite world go round. The Lithuanian company thrives with simple yet powerful email marketing. With MailerLite's digital services, people of all skill levels can create and optimize campaigns, tighten subscriber relationships, and grow their businesses.

While MailerLite expanded, its platform infrastructure fell behind. Performance, security, and scalability were hard to maintain. Delivering high-quality services with 24/7 uptime became an issue. It was time for a change. MailerLite started to revamp its application with today's technology and decided to move it to a cloud hyperscaler within 60 days.



100 million customer files

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Nikola Milojević
CTO, MailerLite

When classic tools fail, file migration causes headaches

The MailerLite application is large and complex, builds on a range of technologies, and integrates with many web services like Shopify and Facebook. Millions of e-mails are sent every day and produce millions of different files. Promotion pop-ups, websites, landing pages, forms, e-mails, surveys, code resources, and much more add up to over 100 million NFS files.

“We save everything as a file. And we generate a lot of them. We send over 30 million e-mails per day and serve hundreds of thousands of landing pages,” said Gediminas Andriajaitis, chief product officer at MailerLite.

Although the files add up to less than 10TB of data storage, their sheer number caused MailerLite’s team headaches. Classic migration tools for the NFS world had already failed due to inconsistencies or poor performance. With Rsync, for example, the initial file synchronization ran for 8 days. Syncing differences took another 5 days.

Taking the fast lane

“When we talked to Google about infrastructure hosting, they mentioned their partnership with NetApp and recommended NetApp Cloud Volumes Service and XCP data mover. We did, and the worst part, the 100 million file transfer, turned out to be the easiest,” said Nikola Milojević, CTO at MailerLite.

MailerLite already had a good relationship with Google. However, their main reasons for choosing Google Cloud were technologies such as native Kubernetes and Creative Commons, the multiregion server setup, and a convenient service contract. NetApp Cloud Volumes Service is integrated

with Google Cloud and offers advanced data management for file services. The XCP software moves data from any storage source to a NetApp storage target. XCP can scan, copy, sync, and verify even the largest file trees. Its built-in NFS client engine fully exploits the available resources and streams data in parallel.

Once MailerLite had captured all directories, files, and file attributes with XCP, they started a baseline copy to transfer the files. This produced an exact match of their storage source and the NetApp Volumes target on Google Cloud. But, of course, the baseline copy won’t be accurate for long on an active marketing platform with over a million business, start-up, and freelance customers.

“The files can change a lot because our customers change them all the time. It was crucial to find and fix the differences to avoid data loss. For the final sync, we had to shut down the app for only 1 hour. It was like magic. And we had only minimal code to change,” said Andriajaitis.

MailerLite drastically reduced both the initial synchronization and subsequent incremental syncing. XCP can run data streaming at higher throughput rates on demand. Using top speed helped MailerLite to keep the scheduled three maintenance hours on the migration day.

“With XCP, the whole synchronization process took only 2 days. When we did the initial transfer of the data, the incremental sync was just 2 hours. On the migration day, it took maybe 1 hour—and we had all our files safe on Google Cloud,” said Milojević. “NetApp XCP is amazing. No other data mover tool in the market can achieve that. And we tried a bunch of them.”

Running an extensive NFS file system conveniently in the cloud

NetApp Cloud Volumes Service put an end to all of the availability, management, and maintenance issues MailerLite had experienced in the past. And it took away all of the ongoing infrastructure overhead. All files, including caching files, share the same infrastructure, which even allows file sharing between application microservices and the app. The MailerLite team finds it easy to create, provision, or resize volumes without impacting application behavior.

“The cost, the price, the service—NetApp Cloud Volumes Service is a great investment. We are happy with it,” said Andrijaitis. “NetApp helps us with technology and talking. We are in close contact with our NetApp team. When there is a question, the answer comes almost instantly.”

Working with NetApp saved MailerLite many developer hours. Instead of creating their own solution that can save files in two places, MailerLite uses the NetApp Snapshot™ function of the NetApp Cloud Volumes Service for file backup. NetApp Snapshot copies are fast and easy to schedule. MailerLite uses them regularly. There haven't been any restores so far, which indicates a highly reliable service.

Cloud steps ahead

MailerLite plans to move more files, such as their image stock, to Google Cloud. “We try to keep up the relationship with NetApp as we are highly satisfied and want to use other NetApp solutions that are viable for us,” said Milojević. One of these solutions will be NetApp technologies (NetApp Astra™) for Kubernetes, the basis for all new MailerLite applications and the MailerLite business.

NetApp products

- Cloud Volumes Service for Google Cloud
- XCP file migration and analytics
- Snapshot technology

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- [NetApp Astra](#)



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