Chronopost has developed an extremely high-performance and reliable IT system to carry out their service mission to consumers and companies, delivering several hundred thousand parcels every day on time, including during peak times. After switching to all-flash storage in 2014, Chronopost continued to modernize their storage to meet their growing needs in terms of storage space and processing power, as a result of the company's strong growth.

BUSINESS TRANSFORMATION

Pure Storage's high performance and the seamless scalability offered by the Pure Evergreen™ Storage program allow Chronopost to benefit from data management systems which remain at the cutting edge of modernity, and to look with confidence towards their future growth.

REGION / COUNTRY

EMEA / France

INDUSTRY

Transportation

"With Pure Storage, we were able to meet the IT challenges inherent to the growth of our business by providing stable performance over time, as well as the resiliency and seamless scalability of the systems implemented."

Robert RADU,
Head of infrastructure division

CHRONOPOST DELIVERS PARCELS AT FLASH SPEED THANKS TO PURE STORAGE

Chronopost in France is part of DPDgroup, the number 2 international parcel delivery network in Europe. As the leading national player in the express delivery of parcels weighing up to 30 kg to companies and individuals, Chronopost relies on a team of 3,800 employees and distributed over 170.7 million parcels in 2018. Chronopost serves 230 countries around the world. With an IT division of 126 people, Chronopost has always positioned itself on new technologies as a pioneer, selecting future market standards ahead of times.

SEARCH FOR AN ALTERNATIVE SOLUTION DRIVEN BY THE NEED FOR BETTER PERFORMANCE

At the end of 2014, experts consulted as part of the company's IS improvement program were formal. The slowdowns observed during the first 3 weeks of December — a key time of the year for all companies dedicated to small parcels transport — were mainly from the two storage arrays mounted in parallel, composed of hard drives. Therefore, at the beginning of 2015, Chronopost launched a search for alternative solutions. True to its reputation as a pioneer, the company decided to only consider its entire IS for all-flash storage arrays.

To ensure their analysis was right, the IT direction set up a benchmark of three competing solutions, including Pure Storage, in their own data centers, and considered the performance of the various arrays in real conditions. Over the course of two months, Robert Radu, project manager in Chronopost's IT infrastructure team at the time, along with his team, carried out synthetic tests of performance, resilience, administration, data deduplication and compression.

"At the end of these tests, the solution offered by Pure Storage seemed to us to be the most efficient," said Robert Radu. "In addition, the way their arrays are designed means it is possible to cope with increases in data volumes without necessarily having to invest in additional processing power. As we have a mix of cold and hot data, it is important for us to be able to increase our storage capacity very easily and at a very low cost without having to invest in new controllers."

CHRONOPOST CONVINCED BY PURE STORAGE'S PERFORMANCE

Chronopost thus embraced Pure Storage's proposition and began the gradual migration of its data in order to perform ongoing tests while scaling up and avoid any service interruption. The operation was a success and allowed Chronopost to face the high point of the year, i.e. the delivery of parcels over the Christmas period. Chronopost's entire

USE CASE:

- Databases – Oracle®, SAP® Sybase ASE, PostgreSQL, and MySQL
- Applications – Web servers, EAI (Tibco®), EDI (TradeExpress®), financial and accounting applications (Oracle), BI (SAP), and in-house applications (transport, tracking)
- VSI – VMware® vSphere®

CHALLENGES:

- Infrastructure could not cope with the growth in seasonal activity and handle the 20% annual growth in data.
- Operational costs increased with datacenter space and power consumption.
- Managing existing systems on a daily basis was too complex.

IT TRANSFORMATION:

- Application response times has been reduced to under 1 millisecond, even during peak times.
- Data reduction of up to 70% with a 3.3:1 deduplication rate reduced CAPEX associated with capacity requirements.
- Chronopost's web ecosystem performance increased by 20%.

IT department was able to observe the same positive result: access times of under a millisecond even during peak times, database patches executed in one-third less time, a web ecosystem performance increased by 20%, and a 70% reduction in the size of its global data.

Chronopost was particularly impressed by the administration console being "extremely intuitive, light years away from [their] previous storage array," as well as by the upgrade and replacement policy for controllers, which consists in making all software upgrades available free of charge without any hidden costs. With a guaranteed remarkable rate of deduplication and its most advanced functions included in the standard offer, the Pure Storage platform has led to a significant operating cost reduction (electricity and space occupation in the datacenter), contributing to the Group's Corporate Social Responsibility approach.

"Last but not least, we had a close relationship with the Pure Storage teams and the Antemeta integrator during the project," said Radu. "This gave us reassurance given the very high expectations in terms of availability and responsiveness that we expect from our partners. Synergy was created between the teams from the beginning of the project."

SCALABILITY THAT SUPPORTS CHRONOPOST'S GROWTH THROUGH THE EVERGREEN PROGRAM

Between 2015 and 2018, Chronopost continued its growth, in particular with the acquisition of new subsidiaries, adding to the Group's overall data volume and processing power requirements. To adapt to this significant growth and meet the requirements of the e-commerce market, Chronopost decided to upgrade its infrastructure on several occasions. Thanks to the Pure Evergreen Storage program, the group first acquired new, more powerful controllers in 2017, and then evolved a second time in 2018 towards additional storage capacity. "On each of these occasions, the changes went smoothly," commented Radu. "Faithful to the Pure Storage promise, we didn't suffer from any service interruption or impact on performance."

Another major infrastructure change was the replacement of Chronopost's old appliances, previously used for synchronous replication between their two sites, with the ActiveCluster native replication solution, which is directly integrated on FlashArray™ controllers. This feature, which does not entail any additional licensing costs for replicated volumes, allows IT to not only meet its resilience objectives but also to simplify its application architecture.

This ability to continuously scale the infrastructure is a key element for Chronopost, whose organic growth is sustained. "When you have a bigger family, you need a bigger car! The scalability as offered by the Evergreen model is very reassuring, both for IT teams and for management," said Radu.

The performance, resiliency and reliability of Pure Storage's solutions have helped meet all the challenges inherent to the growing business and the increasing loads on primary storage. Chronopost has thus succeeded in reducing overall latency by 50%, while doubling its processing capacity. For end customers, this means ensuring a high level of service without service interruption, even during maintenance operations. The technical benefits also have had a human impact internally, since the solution's transparent scalability and ease of operation allow storage administration teams to spend more time on developing their skills.

Radu concluded, "Chronopost is delighted to have developed a long-term partnership with Pure Storage and Antemeta, and to have found a manufacturer that shares the same values, focused on commitment, innovation and adaptability to serve its customers."

PURESTORAGE®

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